

**Table S2** Supplementary. Proteins of Group 2 (42 to 77 months old) dog (*Canis lupus familiaris*) epididymal spermatozoa evaluated by mass spectrometry (NanoUPLC-Q-TOF/MS).

| Description   | Log Prob | Best  Log Prob | Best score | Total Intensity | # of spectra | # of unique peptides | # of mod peptides | Coverage % | # AA's in protein | Protein DB number |
|---|----------|----------------|------------|-----------------|--------------|----------------------|-------------------|------------|-------------------|-------------------|
| >tr F1PR54 F1PR54_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                 | 17.90    | 4.31           | 326.60     | 1652321844.4    | 108          | 12                   | 3                 | 15.68      | 708               | 40436             |
| >tr F1PR54 F1PR54_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                 | 18.80    | 4.55           | 338.80     | 1552918775.9    | 114          | 13                   | 3                 | 17.94      | 708               | 40436             |
| >tr A0A5F4BVF3 A0A5F4BVF3_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                         | 17.82    | 3.11           | 340.00     | 862957897.6     | 85           | 11                   | 1                 | 18.69      | 626               | 32850             |
| >tr F1PR54 F1PR54_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                 | 19.96    | 3.73           | 446.30     | 852673699.4     | 110          | 15                   | 3                 | 19.77      | 708               | 40436             |
| >tr F1PR54 F1PR54_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                 | 12.05    | 2.61           | 394.20     | 820397119.9     | 79           | 12                   | 2                 | 15.68      | 708               | 40436             |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                    | 3.52     | 0.70           | 387.70     | 794551556.1     | 49           | 4                    | 0                 | 15.18      | 191               | 165               |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                    | 7.49     | 3.22           | 345.70     | 780863794.3     | 40           | 4                    | 1                 | 13.09      | 191               | 165               |
| >tr A0A5F4BVF3 A0A5F4BVF3_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                         | 18.60    | 4.25           | 308.60     | 762179291.5     | 78           | 11                   | 1                 | 18.53      | 626               | 32850             |
| >tr A0A5F4BVF3 A0A5F4BVF3_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                         | 8.01     | 2.43           | 352.20     | 759899559.8     | 60           | 10                   | 0                 | 13.90      | 626               | 32850             |
| >tr F1PR54 F1PR54_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                 | 13.38    | 3.85           | 333.50     | 716046838.0     | 57           | 11                   | 0                 | 15.11      | 708               | 40436             |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                    | 5.24     | 2.10           | 365.40     | 669269929.8     | 55           | 5                    | 1                 | 15.18      | 191               | 165               |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3  | 15.98    | 4.19           | 403.10     | 566233765.5     | 36           | 8                    | 0                 | 16.61      | 608               | 490               |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3  | 17.51    | 4.64           | 399.80     | 526339247.1     | 37           | 8                    | 0                 | 16.61      | 608               | 490               |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                    | 3.65     | 2.06           | 362.80     | 515715047.0     | 31           | 3                    | 1                 | 13.09      | 191               | 165               |
| >tr F1PJ71 F1PJ71_CANLF Glutathione peroxidase OS=Canis lupus familiaris OX=9615 GN=GPX5 PE=3 SV=2                          | 4.67     | 2.08           | 360.00     | 436043750.2     | 29           | 6                    | 1                 | 27.60      | 221               | 19009             |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3                              | 8.05     | 3.92           | 296.40     | 390446920.9     | 21           | 4                    | 0                 | 13.07      | 375               | 642               |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3                              | 4.31     | 2.86           | 356.40     | 386319672.7     | 26           | 3                    | 0                 | 5.60       | 375               | 642               |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3                              | 5.26     | 3.70           | 332.70     | 377724865.9     | 20           | 3                    | 0                 | 5.60       | 375               | 642               |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3                              | 6.13     | 3.45           | 266.80     | 363808552.4     | 21           | 4                    | 0                 | 13.07      | 375               | 642               |
| >tr A0A5F4C0U6 A0A5F4C0U6_CANLF MLLT1 super elongation complex subunit OS=Canis lupus familiaris OX=9615 GN=MLLT1 PE=4 SV=1 | 0.10     | 0.00           | 138.50     | 313799140.8     | 34           | 2                    | 0                 | 1.17       | 597               | 1602              |

|   |       |      |        |             |    |   |   |       |      |       |
|---|-------|------|--------|-------------|----|---|---|-------|------|-------|
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                   | 11.15 | 4.65 | 591.20 | 305690403.5 | 52 | 3 | 0 | 30.20 | 149  | 153   |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3  | 3.20  | 1.90 | 324.10 | 285008321.9 | 19 | 3 | 0 | 7.73  | 375  | 642   |
| >tr A0A5F4D9S5 A0A5F4D9S5_CANLF Hyaluronoglucosaminidase OS=Canis lupus familiaris OX=9615 GN=CEMIP PE=3 SV=1                           | 1.01  | 0.65 | 166.50 | 280157362.3 | 19 | 1 | 0 | 0.24  | 1684 | 9775  |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3  | 4.32  | 2.89 | 325.00 | 271563599.7 | 18 | 2 | 0 | 5.33  | 375  | 642   |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                   | 7.98  | 3.65 | 566.70 | 270657261.6 | 55 | 2 | 0 | 14.77 | 149  | 153   |
| >sp P62286 ASPM_CANLF Abnormal spindle-like microcephaly-associated protein homolog OS=Canis lupus familiaris OX=9615 GN=ASPM PE=2 SV=2 | 1.18  | 1.10 | 94.10  | 258449448.8 | 29 | 2 | 0 | 0.14  | 3469 | 677   |
| >tr A0A5F4D9S5 A0A5F4D9S5_CANLF Hyaluronoglucosaminidase OS=Canis lupus familiaris OX=9615 GN=CEMIP PE=3 SV=1                           | 1.25  | 0.91 | 168.80 | 257697074.2 | 18 | 1 | 0 | 0.24  | 1684 | 9775  |
| >sp Q6AW47 EST5A_CANLF Carboxylesterase 5A OS=Canis lupus familiaris OX=9615 GN=CES5A PE=2 SV=1   | 2.79  | 1.73 | 214.80 | 237651160.2 | 22 | 5 | 0 | 6.78  | 575  | 629   |
| >tr F1PBU5 F1PBU5_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=SMG1 PE=3 SV=3                | 0.68  | 0.33 | 172.00 | 229564678.8 | 17 | 2 | 0 | 0.17  | 3634 | 6898  |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                   | 5.58  | 2.67 | 466.20 | 229332681.6 | 35 | 3 | 0 | 30.20 | 149  | 153   |
| >tr F1P884 F1P884_CANLF PiggyBac transposable element derived 5 OS=Canis lupus familiaris OX=9615 GN=PGBD5 PE=4 SV=3                    | 0.22  | 0.03 | 193.50 | 225718553.0 | 15 | 1 | 0 | 2.40  | 458  | 28672 |
| >tr F1PBU5 F1PBU5_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=SMG1 PE=3 SV=3                | 0.93  | 0.35 | 175.80 | 224198462.4 | 16 | 2 | 0 | 0.17  | 3634 | 6898  |
| >sp O46607 GPX5_CANLF Epididymal secretory glutathione peroxidase OS=Canis lupus familiaris OX=9615 GN=GPX5 PE=2 SV=1                   | 1.59  | 1.32 | 255.10 | 216045839.2 | 13 | 2 | 0 | 8.60  | 221  | 564   |
| >tr A0A5F4BQW4 A0A5F4BQW4_CANLF Zinc finger protein 654 OS=Canis lupus familiaris OX=9615 GN=ZNF654 PE=4 SV=1                           | 0.65  | 0.35 | 184.70 | 215177541.3 | 16 | 1 | 1 | 1.03  | 1170 | 6910  |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3  | 3.17  | 2.69 | 347.90 | 203712745.7 | 16 | 2 | 0 | 4.53  | 375  | 642   |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1  | 3.82  | 3.16 | 309.90 | 197948110.7 | 37 | 2 | 0 | 9.09  | 110  | 41542 |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3  | 5.51  | 4.41 | 292.70 | 195437997.0 | 13 | 2 | 0 | 5.33  | 375  | 642   |
| >tr A0A5F4BQW4 A0A5F4BQW4_CANLF Zinc finger protein 654 OS=Canis lupus familiaris OX=9615 GN=ZNF654 PE=4 SV=1                           | 0.33  | 0.05 | 182.60 | 195358378.1 | 15 | 1 | 1 | 1.03  | 1170 | 6910  |
| >tr A0A5F4BVF3 A0A5F4BVF3_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                     | 4.79  | 2.17 | 217.40 | 189715191.7 | 40 | 6 | 0 | 8.63  | 626  | 32850 |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                                | 2.51  | 1.33 | 296.30 | 188331634.4 | 17 | 2 | 1 | 10.47 | 191  | 165   |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                   | 12.19 | 5.02 | 522.60 | 184771152.5 | 42 | 3 | 0 | 30.20 | 149  | 153   |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1  | 6.12  | 3.91 | 298.90 | 183203134.3 | 40 | 3 | 0 | 12.73 | 110  | 41542 |

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|--|------|------|--------|-------------|----|---|---|-------|------|-------|
| >tr F1PGF9 F1PGF9_CANLF Rho guanine nucleotide exchange factor 26 OS=Canis lupus familiaris OX=9615 GN=ARHGEF26 PE=4 SV=3            | 0.39 | 0.25 | 284.80 | 180919513.8 | 8  | 1 | 0 | 0.84  | 594  | 22876 |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1   | 4.59 | 3.91 | 289.60 | 176281226.2 | 35 | 2 | 0 | 9.09  | 110  | 41542 |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                | 4.36 | 2.00 | 494.20 | 171585154.1 | 31 | 3 | 0 | 30.20 | 149  | 153   |
| >tr F1PGF9 F1PGF9_CANLF Rho guanine nucleotide exchange factor 26 OS=Canis lupus familiaris OX=9615 GN=ARHGEF26 PE=4 SV=3            | 0.29 | 0.17 | 313.90 | 170134699.1 | 7  | 1 | 0 | 0.84  | 594  | 22876 |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1   | 3.94 | 2.94 | 283.90 | 160368534.8 | 32 | 3 | 0 | 20.91 | 110  | 41542 |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1   | 2.35 | 1.15 | 235.90 | 154185585.8 | 29 | 3 | 0 | 20.91 | 110  | 41542 |
| >sp F1PRN2 MYO1D_CANLF Unconventional myosin-Id OS=Canis lupus familiaris OX=9615 GN=MYO1D PE=1 SV=2                                 | 0.65 | 0.24 | 167.80 | 153665307.0 | 13 | 2 | 0 | 0.50  | 1006 | 763   |
| >tr A0A5F4D7J3 A0A5F4D7J3_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=CDC42BPA PE=3 SV=1 | 1.83 | 1.29 | 257.40 | 150266888.8 | 22 | 2 | 0 | 0.39  | 1794 | 1069  |
| >sp O46607 GPX5_CANLF Epididymal secretory glutathione peroxidase OS=Canis lupus familiaris OX=9615 GN=GPX5 PE=2 SV=1                | 0.95 | 0.87 | 218.70 | 144258937.3 | 6  | 2 | 0 | 8.60  | 221  | 564   |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                             | 2.96 | 1.57 | 286.80 | 144101989.8 | 12 | 3 | 1 | 10.47 | 191  | 165   |
| >sp Q9MZY0 CP2E1_CANLF Cytochrome P450 2E1 OS=Canis lupus familiaris OX=9615 GN=CYP2E1 PE=2 SV=1                                     | 0.45 | 0.27 | 113.60 | 144098969.0 | 8  | 2 | 1 | 4.66  | 494  | 522   |
| >sp Q6AW47 EST5A_CANLF Carboxylesterase 5A OS=Canis lupus familiaris OX=9615 GN=CES5A PE=2 SV=1                                      | 0.75 | 0.51 | 201.10 | 143024166.5 | 12 | 4 | 0 | 7.83  | 575  | 629   |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1   | 5.15 | 3.09 | 306.70 | 138867227.7 | 28 | 2 | 0 | 9.09  | 110  | 41542 |
| >tr J9NYP3 J9NYP3_CANLF THAP domain containing 7 OS=Canis lupus familiaris OX=9615 GN=THAP7 PE=4 SV=2                                | 0.12 | 0.01 | 126.20 | 130894182.5 | 44 | 2 | 1 | 2.43  | 411  | 5194  |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1   | 4.93 | 3.25 | 278.70 | 130506796.3 | 27 | 2 | 0 | 9.09  | 110  | 41542 |
| >tr E2RJR2 E2RJR2_CANLF NADH:ubiquinone oxidoreductase subunit A9 OS=Canis lupus familiaris OX=9615 GN=NDUFA9 PE=4 SV=2              | 0.16 | 0.04 | 62.00  | 128300823.9 | 7  | 1 | 1 | 5.31  | 377  | 3530  |
| >sp Q2PQH8 GDE_CANLF Glycogen debranching enzyme OS=Canis lupus familiaris OX=9615 GN=AGL PE=2 SV=1                                  | 0.59 | 0.18 | 124.30 | 127398547.3 | 14 | 2 | 0 | 0.26  | 1533 | 23    |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                             | 2.33 | 1.02 | 252.50 | 127280671.2 | 24 | 2 | 1 | 10.47 | 191  | 165   |
| >tr A0A5F4BU48 A0A5F4BU48_CANLF Suppression of tumorigenicity 7 OS=Canis lupus familiaris OX=9615 GN=ST7 PE=3 SV=1                   | 0.77 | 0.61 | 159.00 | 127117166.5 | 10 | 2 | 0 | 3.91  | 460  | 2504  |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                             | 2.71 | 1.83 | 322.10 | 123286338.8 | 11 | 2 | 1 | 10.47 | 191  | 165   |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2   | 3.49 | 2.19 | 207.80 | 122698749.5 | 10 | 4 | 0 | 11.37 | 299  | 1932  |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                | 8.32 | 3.38 | 270.30 | 121461626.9 | 15 | 3 | 0 | 30.20 | 149  | 153   |

|  |      |      |        |             |    |   |   |       |      |       |
|--|------|------|--------|-------------|----|---|---|-------|------|-------|
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                                       | 1.45 | 1.21 | 330.20 | 121434526.9 | 12 | 2 | 1 | 10.47 | 191  | 165   |
| >sp O46607 GPX5_CANLF Epididymal secretory glutathione peroxidase OS=Canis lupus familiaris OX=9615 GN=GPX5 PE=2 SV=1                          | 2.00 | 1.50 | 225.60 | 119482095.6 | 8  | 2 | 0 | 8.60  | 221  | 564   |
| >tr E2RRF5 E2RRF5_CANLF RNA binding motif protein 19 OS=Canis lupus familiaris OX=9615 GN=RBM19 PE=4 SV=3                                      | 0.10 | 0.00 | 56.10  | 118978307.2 | 49 | 2 | 0 | 0.72  | 970  | 905   |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3   | 4.97 | 4.18 | 383.10 | 113426229.3 | 19 | 2 | 0 | 5.33  | 375  | 642   |
| >tr F1PHP9 F1PHP9_CANLF Ectopic P-granules autophagy protein 5 homolog OS=Canis lupus familiaris OX=9615 GN=EPG5 PE=3 SV=3                     | 0.25 | 0.09 | 176.50 | 112742791.7 | 9  | 1 | 0 | 0.16  | 2574 | 20660 |
| >tr E2RE16 E2RE16_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=PAK4 PE=4 SV=1                       | 0.65 | 0.02 | 80.40  | 112709410.0 | 43 | 1 | 0 | 0.84  | 592  | 12735 |
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=2  | 1.36 | 0.89 | 222.00 | 112100494.3 | 8  | 2 | 0 | 9.48  | 116  | 21717 |
| >tr F1PI09 F1PI09_CANLF Aldehyde oxidase OS=Canis lupus familiaris OX=9615 GN=AOX2 PE=3 SV=3   | 1.41 | 1.05 | 208.30 | 112062641.8 | 19 | 1 | 0 | 0.67  | 1347 | 21650 |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3   | 5.37 | 2.97 | 250.40 | 110965587.9 | 26 | 4 | 0 | 10.40 | 375  | 642   |
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=2  | 1.97 | 1.75 | 278.40 | 109486759.0 | 7  | 2 | 0 | 9.48  | 116  | 21717 |
| >tr A0A5F4CAH2 A0A5F4CAH2_CANLF RNA polymerase II subunit A C-terminal domain phosphatase OS=Canis lupus familiaris OX=9615 GN=CTDP1 PE=4 SV=1 | 0.24 | 0.08 | 132.00 | 107646701.2 | 9  | 1 | 0 | 0.74  | 945  | 14396 |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2             | 1.62 | 1.50 | 200.90 | 107134375.8 | 7  | 1 | 0 | 3.01  | 299  | 1932  |
| >tr F1PI09 F1PI09_CANLF Aldehyde oxidase OS=Canis lupus familiaris OX=9615 GN=AOX2 PE=3 SV=3   | 1.57 | 1.23 | 204.30 | 106793370.4 | 18 | 1 | 0 | 0.67  | 1347 | 21650 |
| >sp Q9GL25 ESPB1_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris OX=9615 GN=ELSPBP1 PE=1 SV=1                               | 0.82 | 0.68 | 212.10 | 103955444.1 | 8  | 2 | 0 | 11.43 | 245  | 36    |
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=2  | 1.43 | 0.95 | 186.80 | 103331089.4 | 7  | 2 | 0 | 9.48  | 116  | 21717 |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2             | 2.06 | 1.67 | 172.90 | 102342870.4 | 8  | 3 | 0 | 11.37 | 299  | 1932  |
| >tr J9NTK2 J9NTK2_CANLF J domain-containing protein OS=Canis lupus familiaris OX=9615 GN=DNAJC12 PE=4 SV=2                                     | 0.10 | 0.00 | 164.10 | 100959245.2 | 6  | 1 | 0 | 4.72  | 106  | 2310  |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3   | 1.43 | 0.65 | 419.20 | 99925622.3  | 8  | 3 | 0 | 6.41  | 608  | 490   |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2             | 1.53 | 1.41 | 234.60 | 98988824.2  | 7  | 1 | 0 | 3.01  | 299  | 1932  |
| >tr A0A5F4BZW4 A0A5F4BZW4_CANLF Malonyl-CoA decarboxylase OS=Canis lupus familiaris OX=9615 GN=MLYCD PE=4 SV=1                                 | 0.19 | 0.07 | 193.00 | 98937958.4  | 7  | 1 | 0 | 1.30  | 461  | 4809  |
| >sp Q9GL25 ESPB1_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris OX=9615 GN=ELSPBP1 PE=1 SV=1                               | 2.84 | 1.65 | 213.60 | 96733442.7  | 7  | 2 | 0 | 11.43 | 245  | 36    |
| >tr F1PGF9 F1PGF9_CANLF Rho guanine nucleotide exchange factor 26 OS=Canis lupus familiaris OX=9615 GN=ARHGEF26 PE=4 SV=3                      | 2.09 | 2.05 | 312.30 | 95855749.2  | 4  | 2 | 1 | 2.36  | 594  | 22876 |

|   |      |      |        |            |    |   |   |       |      |       |
|---|------|------|--------|------------|----|---|---|-------|------|-------|
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1  | 3.57 | 2.76 | 232.60 | 91654096.5 | 37 | 3 | 0 | 12.73 | 110  | 41542 |
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=2                                   | 3.05 | 2.11 | 263.60 | 91410460.8 | 6  | 2 | 0 | 9.48  | 116  | 21717 |
| >tr J9NTK2 J9NTK2_CANLF J domain-containing protein OS=Canis lupus familiaris OX=9615 GN=DNAJC12 PE=4 SV=2                          | 0.29 | 0.21 | 178.20 | 90115296.5 | 5  | 1 | 0 | 4.72  | 106  | 2310  |
| >sp Q5QQ50 XYLT2_CANLF Xylosyltransferase 2 OS=Canis lupus familiaris OX=9615 GN=XYLT2 PE=2 SV=1                                    | 0.15 | 0.03 | 205.90 | 90099853.9 | 7  | 2 | 1 | 0.69  | 865  | 388   |
| >tr A0A5F4CLI1 A0A5F4CLI1_CANLF Histone deacetylase 6 OS=Canis lupus familiaris OX=9615 GN=HDAC6 PE=4 SV=1                          | 0.82 | 0.72 | 168.10 | 87837816.6 | 6  | 1 | 0 | 0.43  | 1175 | 4057  |
| >tr F1PJ71 F1PJ71_CANLF Glutathione peroxidase OS=Canis lupus familiaris OX=9615 GN=GPX5 PE=3 SV=2                                  | 0.89 | 0.44 | 229.40 | 87562014.0 | 9  | 5 | 1 | 26.24 | 221  | 19009 |
| >tr A0A5F4CPU3 A0A5F4CPU3_CANLF SEC24 homolog D, COPII coat complex component OS=Canis lupus familiaris OX=9615 GN=SEC24D PE=3 SV=1 | 0.46 | 0.02 | 64.00  | 86457550.0 | 36 | 1 | 0 | 0.53  | 946  | 2125  |
| >tr J9NS28 J9NS28_CANLF RBR-type E3 ubiquitin transferase OS=Canis lupus familiaris OX=9615 GN=ANKIB1 PE=4 SV=2                     | 0.56 | 0.50 | 46.20  | 86444910.9 | 4  | 1 | 0 | 2.33  | 988  | 26345 |
| >tr A0A5F4C730 A0A5F4C730_CANLF Semaphorin 4D OS=Canis lupus familiaris OX=9615 GN=SEMA4D PE=3 SV=1                                 | 0.46 | 0.28 | 217.70 | 86184259.5 | 10 | 1 | 0 | 0.28  | 1067 | 1802  |
| >sp F1PRN2 MYO1D_CANLF Unconventional myosin-Id OS=Canis lupus familiaris OX=9615 GN=MYO1D PE=1 SV=2                                | 0.43 | 0.23 | 199.40 | 85900296.0 | 11 | 1 | 0 | 0.30  | 1006 | 763   |
| >tr A0A5F4BVF3 A0A5F4BVF3_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1                                 | 2.97 | 0.77 | 245.20 | 85106957.9 | 21 | 8 | 0 | 12.78 | 626  | 32850 |
| >sp F1PRN2 MYO1D_CANLF Unconventional myosin-Id OS=Canis lupus familiaris OX=9615 GN=MYO1D PE=1 SV=2                                | 1.03 | 0.80 | 183.10 | 84640402.1 | 9  | 2 | 0 | 0.50  | 1006 | 763   |
| >tr F6XHP7 F6XHP7_CANLF Centrosomal protein 104 OS=Canis lupus familiaris OX=9615 GN=CEP104 PE=4 SV=1                               | 0.18 | 0.08 | 83.10  | 83130079.1 | 6  | 1 | 0 | 0.76  | 925  | 15362 |
| >tr A0A5F4D967 A0A5F4D967_CANLF GLI family zinc finger 1 OS=Canis lupus familiaris OX=9615 GN=GLI1 PE=3 SV=1                        | 0.51 | 0.05 | 163.90 | 83105868.0 | 24 | 1 | 0 | 0.70  | 1139 | 11817 |
| >tr F1PTD0 F1PTD0_CANLF F-box and WD repeat domain containing 8 OS=Canis lupus familiaris OX=9615 GN=FBXW8 PE=4 SV=3                | 0.14 | 0.02 | 32.10  | 82206437.4 | 7  | 1 | 1 | 1.83  | 546  | 7542  |
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=2                                   | 0.52 | 0.43 | 259.80 | 81343342.7 | 6  | 2 | 0 | 9.48  | 116  | 21717 |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1  | 6.34 | 4.46 | 279.60 | 80851370.9 | 19 | 3 | 0 | 12.73 | 110  | 41542 |
| >tr F1P8F3 F1P8F3_CANLF Utrophin OS=Canis lupus familiaris OX=9615 GN=UTRN PE=4 SV=3  | 0.64 | 0.39 | 134.00 | 80088013.7 | 5  | 2 | 1 | 0.67  | 3421 | 13521 |
| >sp Q9GL25 ESPB1_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris OX=9615 GN=ELSPBP1 PE=1 SV=1                    | 1.36 | 0.99 | 198.60 | 79737602.4 | 8  | 2 | 0 | 11.43 | 245  | 36    |
| >sp Q9GL25 ESPB1_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris OX=9615 GN=ELSPBP1 PE=1 SV=1                    | 1.84 | 1.69 | 210.20 | 79643556.9 | 6  | 2 | 0 | 11.43 | 245  | 36    |
| >sp Q2PQH8 GDE_CANLF Glycogen debranching enzyme OS=Canis lupus familiaris OX=9615 GN=AGL PE=2 SV=1                                 | 2.49 | 2.28 | 112.90 | 79288050.0 | 5  | 2 | 0 | 0.26  | 1533 | 23    |
| >tr F1P8F3 F1P8F3_CANLF Utrophin OS=Canis lupus familiaris OX=9615 GN=UTRN PE=4 SV=3  | 0.16 | 0.06 | 137.40 | 79124383.3 | 5  | 2 | 1 | 0.67  | 3421 | 13521 |

|   |      |      |        |            |    |   |   |       |      |       |
|---|------|------|--------|------------|----|---|---|-------|------|-------|
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus familiaris OX=9615 GN=CRISP2 PE=3 SV=1                             | 1.47 | 1.37 | 285.30 | 78862207.4 | 7  | 1 | 0 | 2.25  | 311  | 11017 |
| >tr A0A5F4C730 A0A5F4C730_CANLF Semaphorin 4D OS=Canis lupus familiaris OX=9615 GN=SEMA4D PE=3 SV=1   | 0.58 | 0.41 | 221.10 | 78465837.4 | 10 | 1 | 0 | 0.28  | 1067 | 1802  |
| >tr J9PAZ6 J9PAZ6_CANLF Hyperpolarization activated cyclic nucleotide gated potassium channel 4 OS=Canis lupus familiaris OX=9615 GN=HCN4 PE=4 SV=2 | 0.10 | 0.00 | 71.30  | 76259828.2 | 4  | 1 | 1 | 4.91  | 530  | 19838 |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1  | 0.26 | 0.17 | 214.30 | 76135462.6 | 6  | 2 | 0 | 3.37  | 445  | 725   |
| >tr J9P9X5 J9P9X5_CANLF ST14 transmembrane serine protease matriptase OS=Canis lupus familiaris OX=9615 GN=ST14 PE=4 SV=2                           | 0.42 | 0.32 | 201.30 | 75671593.7 | 6  | 1 | 0 | 0.45  | 882  | 2776  |
| >tr A0A5F4CQM7 A0A5F4CQM7_CANLF PX domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=1  | 0.11 | 0.04 | 143.40 | 75586462.4 | 6  | 1 | 1 | 7.87  | 127  | 39214 |
| >sp P62286 ASPM_CANLF Abnormal spindle-like microcephaly-associated protein homolog OS=Canis lupus familiaris OX=9615 GN=ASPM PE=2 SV=2             | 0.30 | 0.11 | 96.40  | 72175653.0 | 6  | 3 | 0 | 0.23  | 3469 | 677   |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1  | 0.50 | 0.42 | 242.10 | 70860716.8 | 5  | 1 | 0 | 0.90  | 445  | 725   |
| >tr J9NS28 J9NS28_CANLF RBR-type E3 ubiquitin transferase OS=Canis lupus familiaris OX=9615 GN=ANKIB1 PE=4 SV=2                                     | 0.10 | 0.00 | 44.40  | 70515348.5 | 3  | 1 | 0 | 2.33  | 988  | 26345 |
| >tr A0A5F4D0B3 A0A5F4D0B3_CANLF Bromodomain containing 1 OS=Canis lupus familiaris OX=9615 GN=BRD1 PE=4 SV=1  | 0.10 | 0.05 | 184.70 | 70399871.5 | 4  | 1 | 0 | 0.81  | 1112 | 1580  |
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus familiaris OX=9615 GN=CRISP2 PE=3 SV=1                             | 2.35 | 2.24 | 286.20 | 68883099.5 | 7  | 2 | 0 | 7.07  | 311  | 11017 |
| >tr E2RPK8 E2RPK8_CANLF Phosphatidylethanolamine binding protein 4 OS=Canis lupus familiaris OX=9615 GN=PEBP4 PE=3 SV=2                             | 3.92 | 3.25 | 270.50 | 68457823.8 | 5  | 2 | 0 | 7.29  | 247  | 4725  |
| >tr A0A5F4CPY7 A0A5F4CPY7_CANLF von Willebrand factor A domain containing 5A OS=Canis lupus familiaris OX=9615 GN=VWA5A PE=4 SV=1                   | 1.06 | 0.98 | 248.90 | 68042554.9 | 5  | 1 | 0 | 0.75  | 803  | 1309  |
| >tr A0A5F4DGF5 A0A5F4DGF5_CANLF Alkaline phosphatase OS=Canis lupus familiaris OX=9615 GN=ALPL PE=3 SV=1  | 2.27 | 1.13 | 244.60 | 67703427.5 | 8  | 3 | 0 | 5.77  | 572  | 6357  |
| >tr E2RRP3 E2RRP3_CANLF LIM homeobox 5 OS=Canis lupus familiaris OX=9615 GN=LHX5 PE=4 SV=1  | 0.11 | 0.05 | 167.90 | 67584106.6 | 4  | 1 | 0 | 2.24  | 402  | 19607 |
| >tr F1P8J6 F1P8J6_CANLF RNA helicase OS=Canis lupus familiaris OX=9615 GN=DDX55 PE=3 SV=3   | 0.10 | 0.01 | 155.80 | 66489374.3 | 4  | 1 | 0 | 1.58  | 568  | 8934  |
| >tr E2RPK8 E2RPK8_CANLF Phosphatidylethanolamine binding protein 4 OS=Canis lupus familiaris OX=9615 GN=PEBP4 PE=3 SV=2                             | 4.64 | 2.38 | 255.40 | 64415870.7 | 5  | 2 | 0 | 7.29  | 247  | 4725  |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3  | 0.52 | 0.39 | 196.70 | 64252726.8 | 6  | 2 | 0 | 4.28  | 608  | 490   |
| >tr A0A5F4CQL9 A0A5F4CQL9_CANLF ATP-dependent RNA helicase DDX1 OS=Canis lupus familiaris OX=9615 GN=DDX1 PE=3 SV=1                                 | 0.21 | 0.16 | 129.00 | 64002380.6 | 4  | 1 | 0 | 1.15  | 784  | 7666  |
| >tr F1Q176 F1Q176_CANLF Nuclear receptor subfamily 2 group E member 1 OS=Canis lupus familiaris OX=9615 GN=NR2E1 PE=3 SV=3                          | 0.30 | 0.22 | 28.10  | 63637974.7 | 5  | 1 | 0 | 5.97  | 385  | 34373 |
| >tr F1PIV8 F1PIV8_CANLF EF-hand domain family member D2 OS=Canis lupus familiaris OX=9615 GN=EFHD2 PE=4 SV=3  | 0.20 | 0.11 | 233.40 | 61863149.6 | 6  | 2 | 0 | 14.79 | 142  | 16068 |
| >tr A0A5F4CLI1 A0A5F4CLI1_CANLF Histone deacetylase 6 OS=Canis lupus familiaris OX=9615 GN=HDAC6 PE=4 SV=1  | 1.00 | 0.94 | 195.20 | 61860410.1 | 4  | 1 | 0 | 0.43  | 1175 | 4057  |

|  |      |      |        |            |    |   |   |       |      |       |
|--|------|------|--------|------------|----|---|---|-------|------|-------|
| >tr A0A5F4D8I6 A0A5F4D8I6_CANLF Phospholipase A2 receptor 1 OS=Canis lupus familiaris OX=9615 GN=PLA2R1 PE=4 SV=1                              | 0.71 | 0.39 | 163.90 | 61749741.6 | 17 | 1 | 0 | 0.50  | 1394 | 6796  |
| >sp O97758 ZO1_CANLF Tight junction protein ZO-1 OS=Canis lupus familiaris OX=9615 GN=TJP1 PE=1 SV=1   | 0.42 | 0.20 | 87.00  | 61682721.7 | 5  | 2 | 0 | 0.23  | 1769 | 139   |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1   | 1.07 | 0.91 | 165.90 | 60288771.1 | 8  | 2 | 0 | 2.25  | 445  | 725   |
| >tr A0A5F4D7J3 A0A5F4D7J3_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=CDC42BPA PE=3 SV=1           | 1.24 | 1.16 | 245.50 | 60079380.4 | 5  | 1 | 0 | 0.22  | 1794 | 1069  |
| >sp O46607 GPX5_CANLF Epididymal secretory glutathione peroxidase OS=Canis lupus familiaris OX=9615 GN=GPX5 PE=2 SV=1                          | 1.17 | 1.00 | 205.10 | 59727087.3 | 3  | 2 | 0 | 8.60  | 221  | 564   |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                             | 3.63 | 3.52 | 331.60 | 57884252.8 | 8  | 2 | 1 | 8.08  | 198  | 41734 |
| >tr A0A5F4C169 A0A5F4C169_CANLF Dmx like 1 OS=Canis lupus familiaris OX=9615 GN=DMXL1 PE=4 SV=1  | 0.29 | 0.25 | 175.20 | 57461917.9 | 3  | 1 | 0 | 0.14  | 2937 | 1001  |
| >tr A0A5F4CZ62 A0A5F4CZ62_CANLF Dynein cytoplasmic 1 heavy chain 1 OS=Canis lupus familiaris OX=9615 GN=DYNC1H1 PE=3 SV=1                      | 0.18 | 0.09 | 212.00 | 57421347.5 | 5  | 2 | 0 | 0.16  | 4329 | 3271  |
| >tr A0A5F4DFX0 A0A5F4DFX0_CANLF Exportin-T OS=Canis lupus familiaris OX=9615 GN=XPOT PE=3 SV=1   | 0.17 | 0.09 | 145.30 | 56971723.2 | 5  | 1 | 0 | 0.75  | 938  | 2329  |
| >sp P23685 NAC1_CANLF Sodium/calcium exchanger 1 OS=Canis lupus familiaris OX=9615 GN=SLC8A1 PE=1 SV=1   | 0.13 | 0.07 | 165.10 | 56287577.8 | 4  | 1 | 0 | 1.03  | 970  | 764   |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                             | 3.30 | 3.13 | 304.70 | 55207079.5 | 8  | 2 | 1 | 8.08  | 198  | 41734 |
| >tr A0A5F4C0S7 A0A5F4C0S7_CANLF HEAT repeat containing 5A OS=Canis lupus familiaris OX=9615 GN=HEATR5A PE=3 SV=1                               | 0.33 | 0.02 | 65.40  | 52598492.9 | 23 | 1 | 0 | 0.25  | 1995 | 1753  |
| >sp Q076A6 MYH1_CANLF Myosin-1 OS=Canis lupus familiaris OX=9615 GN=MYH1 PE=3 SV=2   | 0.10 | 0.02 | 123.30 | 52568652.7 | 5  | 1 | 0 | 0.10  | 1939 | 121   |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3   | 0.16 | 0.06 | 162.50 | 52085471.2 | 5  | 2 | 0 | 4.28  | 608  | 490   |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                          | 9.55 | 4.67 | 501.20 | 51800673.6 | 30 | 2 | 0 | 14.77 | 149  | 153   |
| >tr A0A5F4CAH2 A0A5F4CAH2_CANLF RNA polymerase II subunit A C-terminal domain phosphatase OS=Canis lupus familiaris OX=9615 GN=CTDP1 PE=4 SV=1 | 0.16 | 0.10 | 125.90 | 51455409.0 | 4  | 1 | 0 | 0.74  | 945  | 14396 |
| >tr A0A5F4DKY4 A0A5F4DKY4_CANLF Dehydrogenase E1 and transketolase domain containing 1 OS=Canis lupus familiaris OX=9615 GN=DHTKD1 PE=3 SV=1   | 0.10 | 0.05 | 104.80 | 51440914.1 | 3  | 1 | 0 | 2.40  | 834  | 5545  |
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus familiaris OX=9615 GN=CRISP2 PE=3 SV=1                        | 1.87 | 1.79 | 243.20 | 50795729.4 | 5  | 1 | 0 | 2.25  | 311  | 11017 |
| >sp Q28894 WFDC2_CANLF WAP four-disulfide core domain protein 2 OS=Canis lupus familiaris OX=9615 GN=WFDC2 PE=2 SV=1                           | 4.54 | 4.38 | 467.20 | 50655447.3 | 9  | 1 | 0 | 6.45  | 124  | 53    |
| >tr A0A5F4D8I6 A0A5F4D8I6_CANLF Phospholipase A2 receptor 1 OS=Canis lupus familiaris OX=9615 GN=PLA2R1 PE=4 SV=1                              | 0.34 | 0.06 | 144.40 | 50230749.6 | 15 | 1 | 0 | 0.50  | 1394 | 6796  |
| >sp Q5JZQ9 CLN5_CANLF Ceroid-lipofuscinosis neuronal protein 5 OS=Canis lupus familiaris OX=9615 GN=CLN5 PE=2 SV=1                             | 0.90 | 0.86 | 254.10 | 49880822.2 | 3  | 1 | 0 | 1.14  | 350  | 651   |
| >tr A0A5F4CGE0 A0A5F4CGE0_CANLF Ubiquitin protein ligase E3C OS=Canis lupus familiaris OX=9615 GN=UBE3C PE=4 SV=1                              | 0.11 | 0.08 | 152.10 | 49667773.2 | 3  | 1 | 0 | 0.97  | 1238 | 9018  |

|   |      |      |        |            |    |   |   |      |      |       |
|---|------|------|--------|------------|----|---|---|------|------|-------|
| >sp P21842 CMA1_CANLF Chymase OS=Canis lupus familiaris OX=9615 GN=CMA1 PE=1 SV=1   | 0.13 | 0.05 | 94.60  | 49378811.8 | 5  | 1 | 0 | 0.80 | 249  | 34    |
| >sp P62286 ASPM_CANLF Abnormal spindle-like microcephaly-associated protein homolog OS=Canis lupus familiaris OX=9615 GN=ASPM PE=2 SV=2         | 1.91 | 1.04 | 121.50 | 48877259.4 | 7  | 3 | 0 | 0.23 | 3469 | 677   |
| >tr E2RE16 E2RE16_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=PAK4 PE=4 SV=1                        | 0.36 | 0.02 | 100.00 | 48233350.0 | 21 | 1 | 0 | 0.84 | 592  | 12735 |
| >tr A0A5F4BQW4 A0A5F4BQW4_CANLF Zinc finger protein 654 OS=Canis lupus familiaris OX=9615 GN=ZNF654 PE=4 SV=1                                   | 0.17 | 0.07 | 166.70 | 48155193.5 | 6  | 1 | 1 | 1.03 | 1170 | 6910  |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2              | 3.20 | 3.14 | 187.20 | 48134410.4 | 4  | 1 | 0 | 3.01 | 299  | 1932  |
| >tr F1PJY1 F1PJY1_CANLF Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase OS=Canis lupus familiaris OX=9615 GN=ENGASE PE=3 SV=3           | 1.35 | 1.16 | 161.90 | 47342666.3 | 9  | 2 | 1 | 1.74 | 690  | 32761 |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 0.29 | 0.23 | 232.80 | 46821243.8 | 4  | 1 | 0 | 0.30 | 1342 | 5979  |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 1.02 | 0.96 | 257.30 | 46707871.0 | 4  | 1 | 0 | 0.30 | 1342 | 5979  |
| >tr J9NW72 J9NW72_CANLF Sperm associated antigen 8 OS=Canis lupus familiaris OX=9615 GN=SPAG8 PE=4 SV=1   | 0.20 | 0.04 | 114.10 | 46404625.9 | 9  | 1 | 0 | 4.07 | 442  | 10371 |
| >tr J9P432 J9P432_CANLF Glutamine--fructose-6-phosphate transaminase (isomerizing) OS=Canis lupus familiaris OX=9615 GN=GFPT1 PE=4 SV=2         | 1.15 | 0.95 | 132.10 | 45591924.9 | 11 | 1 | 0 | 1.18 | 677  | 7191  |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3  | 4.36 | 3.17 | 272.90 | 43519501.1 | 18 | 3 | 0 | 6.41 | 608  | 490   |
| >tr F1P6B8 F1P6B8_CANLF Intraflagellar transport protein 57 homolog OS=Canis lupus familiaris OX=9615 GN=IFT57 PE=3 SV=3                        | 0.26 | 0.22 | 124.60 | 43519116.3 | 3  | 1 | 0 | 0.83 | 482  | 4757  |
| >tr J9NS29 J9NS29_CANLF Cystatin domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC607874 PE=4 SV=2                             | 0.79 | 0.75 | 178.80 | 43209619.1 | 3  | 1 | 0 | 6.39 | 313  | 30016 |
| >tr F1PLT8 F1PLT8_CANLF Sulfhydryl oxidase OS=Canis lupus familiaris OX=9615 GN=QSOX1 PE=3 SV=3   | 1.82 | 1.74 | 132.70 | 42812978.9 | 5  | 1 | 0 | 3.35 | 568  | 33056 |
| >tr F1PRI9 F1PRI9_CANLF Acyltransferase OS=Canis lupus familiaris OX=9615 GN=DGAT2 PE=3 SV=3  | 0.17 | 0.05 | 58.80  | 42206425.2 | 7  | 1 | 1 | 1.89 | 424  | 31675 |
| >tr A0A5F4C7E7 A0A5F4C7E7_CANLF 3-beta-hydroxysterol Delta (14)-reductase OS=Canis lupus familiaris OX=9615 GN=LBR PE=3 SV=1                    | 0.10 | 0.05 | 163.20 | 41982111.7 | 3  | 1 | 0 | 1.04 | 576  | 1034  |
| >tr A0A5F4D967 A0A5F4D967_CANLF GLI family zinc finger 1 OS=Canis lupus familiaris OX=9615 GN=GLI1 PE=3 SV=1                                    | 0.13 | 0.01 | 159.90 | 41711241.5 | 12 | 1 | 0 | 0.70 | 1139 | 11817 |
| >tr F1PJY1 F1PJY1_CANLF Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase OS=Canis lupus familiaris OX=9615 GN=ENGASE PE=3 SV=3           | 0.48 | 0.18 | 146.50 | 41325052.6 | 10 | 2 | 1 | 1.74 | 690  | 32761 |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1  | 0.29 | 0.27 | 235.00 | 39800627.0 | 2  | 1 | 0 | 0.90 | 445  | 725   |
| >tr A0A5F4CV50 A0A5F4CV50_CANLF ETS transcription factor ELK4 OS=Canis lupus familiaris OX=9615 GN=ELK4 PE=3 SV=1                               | 0.43 | 0.42 | 64.60  | 39553680.0 | 2  | 1 | 1 | 2.50 | 520  | 7938  |
| >tr F1PPP9 F1PPP9_CANLF Family with sequence similarity 135 member A OS=Canis lupus familiaris OX=9615 GN=FAM135A PE=3 SV=3                     | 0.21 | 0.09 | 163.00 | 39376421.0 | 8  | 1 | 0 | 1.22 | 1399 | 6815  |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2              | 3.33 | 3.29 | 212.90 | 39130593.5 | 3  | 1 | 0 | 3.01 | 299  | 1932  |

|   |      |      |        |            |    |   |   |      |      |       |
|---|------|------|--------|------------|----|---|---|------|------|-------|
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus familiaris OX=9615 GN=CRISP2 PE=3 SV=1                         | 1.27 | 1.21 | 231.00 | 39031198.1 | 4  | 1 | 0 | 2.25 | 311  | 11017 |
| >tr A0A5F4DI92 A0A5F4DI92_CANLF DNA helicase OS=Canis lupus familiaris OX=9615 GN=CHD6 PE=3 SV=1  | 0.10 | 0.06 | 174.60 | 38589390.5 | 3  | 1 | 0 | 0.26 | 2685 | 3470  |
| >tr J9P6I3 J9P6I3_CANLF Chloride intracellular channel protein OS=Canis lupus familiaris OX=9615 GN=CLIC2 PE=3 SV=1                             | 0.10 | 0.00 | 170.60 | 38559607.2 | 2  | 1 | 0 | 2.93 | 239  | 40482 |
| >sp P62286 ASPM_CANLF Abnormal spindle-like microcephaly-associated protein homolog OS=Canis lupus familiaris OX=9615 GN=ASPM PE=2 SV=2         | 0.29 | 0.10 | 43.30  | 38400604.6 | 10 | 2 | 0 | 0.23 | 3469 | 677   |
| >tr F1PS54 F1PS54_CANLF MFS domain-containing protein OS=Canis lupus familiaris OX=9615 GN=SLC17A3 PE=4 SV=3                                    | 0.10 | 0.01 | 42.50  | 38123286.0 | 2  | 1 | 1 | 7.71 | 493  | 988   |
| >tr A0A5F4D6L9 A0A5F4D6L9_CANLF Sacsin molecular chaperone OS=Canis lupus familiaris OX=9615 GN=SACS PE=4 SV=1                                  | 0.84 | 0.78 | 236.00 | 37550451.5 | 5  | 2 | 0 | 0.18 | 4500 | 1444  |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1  | 1.71 | 1.69 | 265.40 | 37186402.5 | 2  | 1 | 0 | 0.90 | 445  | 725   |
| >tr E2RDH6 E2RDH6_CANLF Cytoplasmic dynein 2 heavy chain 1 OS=Canis lupus familiaris OX=9615 GN=DYNC2H1 PE=3 SV=3                               | 0.16 | 0.03 | 149.60 | 37149940.3 | 10 | 2 | 1 | 0.24 | 4253 | 25056 |
| >tr A0A5F4BT89 A0A5F4BT89_CANLF Olfactory receptor OS=Canis lupus familiaris OX=9615 GN=OR5W6 PE=3 SV=1   | 0.10 | 0.00 | 106.40 | 37127417.2 | 2  | 1 | 1 | 6.95 | 302  | 29923 |
| >tr A0A5F4D6L9 A0A5F4D6L9_CANLF Sacsin molecular chaperone OS=Canis lupus familiaris OX=9615 GN=SACS PE=4 SV=1                                  | 1.27 | 1.22 | 231.30 | 36901438.8 | 8  | 2 | 0 | 0.18 | 4500 | 1444  |
| >tr J9P6I3 J9P6I3_CANLF Chloride intracellular channel protein OS=Canis lupus familiaris OX=9615 GN=CLIC2 PE=3 SV=1                             | 0.10 | 0.00 | 166.30 | 36388172.7 | 2  | 1 | 0 | 2.93 | 239  | 40482 |
| >tr A0A5F4DCZ9 A0A5F4DCZ9_CANLF Kinase D interacting substrate 220 OS=Canis lupus familiaris OX=9615 GN=KIDINS220 PE=4 SV=1                     | 0.10 | 0.08 | 140.50 | 36026128.8 | 2  | 1 | 0 | 0.60 | 1678 | 1923  |
| >tr F1PPP9 F1PPP9_CANLF Family with sequence similarity 135 member A OS=Canis lupus familiaris OX=9615 GN=FAM135A PE=3 SV=3                     | 1.30 | 0.94 | 141.60 | 35789354.8 | 19 | 1 | 0 | 1.22 | 1399 | 6815  |
| >tr J9P432 J9P432_CANLF Glutamine--fructose-6-phosphate transaminase (isomerizing) OS=Canis lupus familiaris OX=9615 GN=GFPT1 PE=4 SV=2         | 1.13 | 1.01 | 126.60 | 35475474.3 | 7  | 1 | 0 | 1.18 | 677  | 7191  |
| >tr J9NS28 J9NS28_CANLF RBR-type E3 ubiquitin transferase OS=Canis lupus familiaris OX=9615 GN=ANKIB1 PE=4 SV=2                                 | 0.18 | 0.04 | 34.90  | 35114008.7 | 8  | 1 | 0 | 2.33 | 988  | 26345 |
| >sp Q2PQH8 GDE_CANLF Glycogen debranching enzyme OS=Canis lupus familiaris OX=9615 GN=AGL PE=2 SV=1   | 0.30 | 0.28 | 67.40  | 35106817.3 | 2  | 1 | 0 | 0.13 | 1533 | 23    |
| >tr F1PLT8 F1PLT8_CANLF Sulfhydryl oxidase OS=Canis lupus familiaris OX=9615 GN=QSOX1 PE=3 SV=3   | 0.21 | 0.19 | 105.90 | 34725115.1 | 2  | 1 | 0 | 2.46 | 568  | 33056 |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 0.82 | 0.78 | 234.90 | 34468734.1 | 3  | 1 | 0 | 0.30 | 1342 | 5979  |
| >tr F1PEN8 F1PEN8_CANLF Carboxylic ester hydrolase OS=Canis lupus familiaris OX=9615 GN=BCHE PE=3 SV=1  | 0.44 | 0.40 | 168.50 | 34444629.9 | 3  | 1 | 0 | 1.33 | 602  | 4179  |
| >sp Q28894 WFDC2_CANLF WAP four-disulfide core domain protein 2 OS=Canis lupus familiaris OX=9615 GN=WFDC2 PE=2 SV=1                            | 2.83 | 2.47 | 371.40 | 34328147.1 | 19 | 1 | 0 | 6.45 | 124  | 53    |
| >sp Q9GL25 ESPB1_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris OX=9615 GN=ELSPBP1 PE=1 SV=1                                | 2.32 | 2.28 | 236.50 | 34317958.4 | 3  | 1 | 0 | 6.94 | 245  | 36    |
| >sp Q5QQ50 XYLT2_CANLF Xylosyltransferase 2 OS=Canis lupus familiaris OX=9615 GN=XYLT2 PE=2 SV=1  | 0.26 | 0.24 | 163.50 | 34088881.2 | 2  | 1 | 0 | 0.46 | 865  | 388   |

|  |      |      |        |            |   |   |   |       |      |       |
|--|------|------|--------|------------|---|---|---|-------|------|-------|
| >tr J9NZH4 J9NZH4_CANLF NTR domain-containing protein OS=Canis lupus familiaris<br>OX=9615 GN=LOC102154527 PE=3 SV=2                               | 0.56 | 0.48 | 90.30  | 33988855.0 | 3 | 2 | 0 | 16.74 | 221  | 39505 |
| >tr F1PS54 F1PS54_CANLF MFS domain-containing protein OS=Canis lupus familiaris<br>OX=9615 GN=SLC17A3 PE=4 SV=3                                    | 0.90 | 0.88 | 36.50  | 33351418.1 | 2 | 1 | 1 | 7.71  | 493  | 988   |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain<br>containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 0.36 | 0.32 | 242.10 | 33189008.8 | 3 | 1 | 0 | 0.30  | 1342 | 5979  |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2<br>SV=1  | 0.15 | 0.07 | 160.30 | 33136343.5 | 5 | 1 | 0 | 2.25  | 445  | 725   |
| >sp Q5JZQ9 CLN5_CANLF Ceroid-lipofuscinosis neuronal protein 5 OS=Canis lupus familiaris<br>OX=9615 GN=CLN5 PE=2 SV=1                              | 1.07 | 1.05 | 238.30 | 32945370.0 | 2 | 1 | 0 | 1.14  | 350  | 651   |
| >tr F1P8J6 F1P8J6_CANLF RNA helicase OS=Canis lupus familiaris OX=9615 GN=DDX55<br>PE=3 SV=3   | 0.10 | 0.00 | 123.50 | 32802576.2 | 2 | 1 | 0 | 1.58  | 568  | 8934  |
| >tr A0A5F4CLI1 A0A5F4CLI1_CANLF Histone deacetylase 6 OS=Canis lupus familiaris<br>OX=9615 GN=HDAC6 PE=4 SV=1                                      | 0.10 | 0.00 | 149.30 | 32754040.1 | 2 | 1 | 0 | 0.43  | 1175 | 4057  |
| >sp Q9GL25 ESPBI_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris<br>OX=9615 GN=ELSPBP1 PE=1 SV=1                                | 2.60 | 2.45 | 212.30 | 32590498.3 | 3 | 2 | 0 | 11.43 | 245  | 36    |
| >tr A0A5F4CU58 A0A5F4CU58_CANLF Bromodomain containing 9 OS=Canis lupus<br>familiaris OX=9615 GN=BRD9 PE=4 SV=1                                    | 0.24 | 0.20 | 152.30 | 32426016.6 | 3 | 1 | 0 | 1.10  | 544  | 17873 |
| >tr J9P3V5 J9P3V5_CANLF FAM75 domain-containing protein OS=Canis lupus familiaris<br>OX=9615 PE=4 SV=2   | 0.39 | 0.35 | 134.80 | 32364420.9 | 3 | 1 | 0 | 0.29  | 1370 | 32063 |
| >sp Q8WMX5 S15A1_CANLF Solute carrier family 15 member 1 OS=Canis lupus familiaris<br>OX=9615 GN=SLC15A1 PE=2 SV=2                                 | 1.31 | 1.26 | 105.20 | 32137387.6 | 3 | 2 | 1 | 1.55  | 708  | 5     |
| >sp Q9TU69 GHR_CANLF Growth hormone receptor OS=Canis lupus familiaris OX=9615<br>GN=GHR PE=2 SV=1   | 0.10 | 0.04 | 138.30 | 31930926.0 | 2 | 1 | 0 | 1.72  | 638  | 541   |
| >tr A0A5F4CGE0 A0A5F4CGE0_CANLF Ubiquitin protein ligase E3C OS=Canis lupus<br>familiaris OX=9615 GN=UBE3C PE=4 SV=1                               | 0.51 | 0.49 | 136.40 | 31871244.2 | 2 | 1 | 0 | 0.97  | 1238 | 9018  |
| >tr F1PJY1 F1PJY1_CANLF Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase<br>OS=Canis lupus familiaris OX=9615 GN=ENGASE PE=3 SV=3           | 0.62 | 0.52 | 156.90 | 31628699.7 | 5 | 2 | 1 | 1.74  | 690  | 32761 |
| >tr A0A5F4BZW4 A0A5F4BZW4_CANLF Malonyl-CoA decarboxylase OS=Canis lupus<br>familiaris OX=9615 GN=MLYCD PE=4 SV=1                                  | 0.10 | 0.02 | 174.60 | 31434672.5 | 2 | 1 | 0 | 1.30  | 461  | 4809  |
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus<br>familiaris OX=9615 GN=CRISP2 PE=3 SV=1                         | 0.13 | 0.10 | 229.70 | 30618312.8 | 3 | 1 | 0 | 2.25  | 311  | 11017 |
| >tr A0A5F4BP79 A0A5F4BP79_CANLF Transformation/transcription domain associated<br>protein OS=Canis lupus familiaris OX=9615 GN=TRRAP PE=4 SV=1     | 0.77 | 0.50 | 186.00 | 30589768.9 | 4 | 2 | 0 | 0.37  | 3783 | 1628  |
| >tr J9P9K7 J9P9K7_CANLF Glycylpeptide N-tetradecanoyltransferase OS=Canis lupus<br>familiaris OX=9615 GN=NMT2 PE=3 SV=2                            | 0.23 | 0.21 | 45.90  | 30071689.7 | 2 | 1 | 0 | 3.16  | 507  | 19368 |
| >sp P21842 CMA1_CANLF Chymase OS=Canis lupus familiaris OX=9615 GN=CMA1 PE=1<br>SV=1   | 0.45 | 0.39 | 107.10 | 29552753.0 | 4 | 1 | 0 | 0.80  | 249  | 34    |
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris<br>OX=9615 PE=4 SV=2   | 3.42 | 1.94 | 256.80 | 29539003.9 | 8 | 2 | 0 | 14.66 | 116  | 21717 |
| >tr F1PLT8 F1PLT8_CANLF Sulfhydryl oxidase OS=Canis lupus familiaris OX=9615<br>GN=QSOX1 PE=3 SV=3   | 2.19 | 2.13 | 143.20 | 29520274.8 | 4 | 1 | 0 | 3.35  | 568  | 33056 |
| >tr J9NS28 J9NS28_CANLF RBR-type E3 ubiquitin transferase OS=Canis lupus familiaris<br>OX=9615 GN=ANKIB1 PE=4 SV=2                                 | 0.40 | 0.38 | 36.50  | 29488155.4 | 2 | 1 | 0 | 2.33  | 988  | 26345 |

|   |      |      |        |            |    |   |   |       |      |       |
|---|------|------|--------|------------|----|---|---|-------|------|-------|
| >sp Q9TU69 GHR_CANLF Growth hormone receptor OS=Canis lupus familiaris OX=9615<br>GN=GHR PE=2 SV=1                                    | 0.15 | 0.13 | 118.50 | 29480740.7 | 2  | 1 | 0 | 1.72  | 638  | 541   |
| >tr A0A5F4D9S5 A0A5F4D9S5_CANLF Hyaluronoglucosaminidase OS=Canis lupus familiaris<br>OX=9615 GN=CEMIP PE=3 SV=1                      | 0.88 | 0.86 | 129.00 | 29240984.6 | 2  | 1 | 0 | 0.24  | 1684 | 9775  |
| >tr A0A5F4D9S5 A0A5F4D9S5_CANLF Hyaluronoglucosaminidase OS=Canis lupus familiaris<br>OX=9615 GN=CEMIP PE=3 SV=1                      | 0.39 | 0.37 | 132.10 | 29055546.1 | 2  | 1 | 0 | 0.24  | 1684 | 9775  |
| >tr A0A5F4BZW4 A0A5F4BZW4_CANLF Malonyl-CoA decarboxylase OS=Canis lupus<br>familiaris OX=9615 GN=MLYCD PE=4 SV=1                     | 0.10 | 0.08 | 189.40 | 29018094.1 | 2  | 1 | 0 | 1.30  | 461  | 4809  |
| >tr E2RRF5 E2RRF5_CANLF RNA binding motif protein 19 OS=Canis lupus familiaris<br>OX=9615 GN=RBM19 PE=4 SV=3                          | 0.10 | 0.00 | 45.30  | 28927092.0 | 4  | 1 | 0 | 0.31  | 970  | 905   |
| >sp P52212 PTHY_CANLF Parathyroid hormone OS=Canis lupus familiaris OX=9615<br>GN=PTH PE=3 SV=1                                       | 0.10 | 0.00 | 25.40  | 28598170.4 | 11 | 1 | 0 | 3.48  | 115  | 263   |
| >tr A0A5F4D6G2 A0A5F4D6G2_CANLF SMG7 nonsense mediated mRNA decay factor<br>OS=Canis lupus familiaris OX=9615 GN=SMG7 PE=4 SV=1       | 0.42 | 0.38 | 230.10 | 28574753.1 | 3  | 1 | 0 | 0.43  | 1175 | 2075  |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus<br>familiaris OX=9615 GN=NPC2 PE=2 SV=1              | 4.13 | 2.09 | 398.80 | 28420166.8 | 13 | 2 | 0 | 14.77 | 149  | 153   |
| >tr J9P3D0 J9P3D0_CANLF Solute carrier family 4 member 9 OS=Canis lupus familiaris<br>OX=9615 GN=SLC4A9 PE=3 SV=2                     | 0.46 | 0.40 | 123.70 | 28122441.8 | 4  | 1 | 0 | 1.12  | 893  | 31921 |
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus<br>familiaris OX=9615 GN=CRISP2 PE=3 SV=1            | 1.56 | 1.54 | 244.00 | 27758081.1 | 2  | 1 | 0 | 2.25  | 311  | 11017 |
| >tr J9P3D0 J9P3D0_CANLF Solute carrier family 4 member 9 OS=Canis lupus familiaris<br>OX=9615 GN=SLC4A9 PE=3 SV=2                     | 1.59 | 1.55 | 90.50  | 27627526.3 | 3  | 1 | 0 | 1.12  | 893  | 31921 |
| >tr A0A5F4CXX5 A0A5F4CXX5_CANLF Carboxypeptidase OS=Canis lupus familiaris<br>OX=9615 GN=CTSA PE=3 SV=1                               | 0.11 | 0.09 | 173.80 | 27559167.3 | 2  | 1 | 0 | 2.27  | 485  | 3309  |
| >tr F1P6B8 F1P6B8_CANLF Intraflagellar transport protein 57 homolog OS=Canis lupus<br>familiaris OX=9615 GN=IFT57 PE=3 SV=3           | 0.44 | 0.19 | 116.30 | 27516919.1 | 7  | 2 | 0 | 1.45  | 482  | 4757  |
| >tr A0A5F4DGF5 A0A5F4DGF5_CANLF Alkaline phosphatase OS=Canis lupus familiaris<br>OX=9615 GN=ALPL PE=3 SV=1                           | 1.25 | 0.99 | 233.90 | 27462453.1 | 3  | 3 | 0 | 5.77  | 572  | 6357  |
| >tr E2RB89 E2RB89_CANLF Chloride channel accessory 2 OS=Canis lupus familiaris<br>OX=9615 GN=CLCA2 PE=3 SV=2                          | 0.15 | 0.09 | 62.70  | 27385999.8 | 4  | 1 | 0 | 1.47  | 951  | 24494 |
| >tr F1PPP9 F1PPP9_CANLF Family with sequence similarity 135 member A OS=Canis lupus<br>familiaris OX=9615 GN=FAM135A PE=3 SV=3        | 0.10 | 0.07 | 145.10 | 27171210.3 | 9  | 1 | 0 | 1.22  | 1399 | 6815  |
| >sp P48831 ZP3_CANLF Zona pellucida sperm-binding protein 3 OS=Canis lupus familiaris<br>OX=9615 GN=ZP3 PE=2 SV=1                     | 0.30 | 0.28 | 142.70 | 27165280.4 | 2  | 1 | 0 | 0.70  | 426  | 21    |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein<br>OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2 | 1.68 | 1.46 | 162.70 | 27033829.4 | 6  | 2 | 0 | 6.35  | 299  | 1932  |
| >tr E2RHE2 E2RHE2_CANLF GTPase, IMAP family member 1 OS=Canis lupus familiaris<br>OX=9615 GN=GIMAP1 PE=3 SV=2                         | 0.10 | 0.03 | 19.90  | 26838621.6 | 4  | 2 | 2 | 6.78  | 295  | 36146 |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris<br>OX=9615 GN=RNASE9 PE=3 SV=2                 | 3.00 | 2.85 | 409.50 | 26682678.7 | 8  | 2 | 1 | 8.08  | 198  | 41734 |
| >tr E2RBM0 E2RBM0_CANLF Cleavage and polyadenylation specific factor 4 OS=Canis lupus<br>familiaris OX=9615 GN=CPSF4 PE=4 SV=3        | 0.98 | 0.90 | 91.60  | 26666997.0 | 5  | 1 | 0 | 2.69  | 260  | 1857  |
| >tr A0A5F4D6L9 A0A5F4D6L9_CANLF Sacsin molecular chaperone OS=Canis lupus<br>familiaris OX=9615 GN=SACS PE=4 SV=1                     | 0.45 | 0.40 | 239.30 | 26648081.5 | 4  | 1 | 0 | 0.09  | 4500 | 1444  |

|   |      |      |        |            |    |   |   |      |      |       |
|---|------|------|--------|------------|----|---|---|------|------|-------|
| >tr A0A5F4D595 A0A5F4D595_CANLF Zinc finger protein 483 OS=Canis lupus familiaris OX=9615 GN=ZNF483 PE=4 SV=1                                   | 0.33 | 0.33 | 70.40  | 26472339.2 | 1  | 1 | 0 | 3.60 | 750  | 3465  |
| >tr A0A5K1V0D8 A0A5K1V0D8_CANLF Sulfatase 2 OS=Canis lupus familiaris OX=9615 GN=SULF2 PE=3 SV=1  | 0.67 | 0.61 | 201.30 | 26246759.4 | 4  | 1 | 0 | 0.35 | 859  | 1192  |
| >sp Q6F3J0 NFKB1_CANLF Nuclear factor NF-kappa-B p105 subunit OS=Canis lupus familiaris OX=9615 GN=NFKB1 PE=2 SV=2                              | 0.13 | 0.11 | 150.90 | 26230930.0 | 2  | 1 | 0 | 0.31 | 972  | 124   |
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus familiaris OX=9615 GN=CRISP2 PE=3 SV=1                         | 0.91 | 0.89 | 250.30 | 26101119.6 | 2  | 1 | 0 | 2.25 | 311  | 11017 |
| >tr A0A5F4CXX5 A0A5F4CXX5_CANLF Carboxypeptidase OS=Canis lupus familiaris OX=9615 GN=CTSA PE=3 SV=1  | 0.59 | 0.57 | 156.90 | 25975261.7 | 2  | 1 | 0 | 2.27 | 485  | 3309  |
| >tr A0A5F4CGE0 A0A5F4CGE0_CANLF Ubiquitin protein ligase E3C OS=Canis lupus familiaris OX=9615 GN=UBE3C PE=4 SV=1                               | 0.23 | 0.21 | 111.80 | 25339567.3 | 2  | 1 | 0 | 0.97 | 1238 | 9018  |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 0.25 | 0.23 | 194.00 | 25247667.4 | 2  | 1 | 0 | 0.30 | 1342 | 5979  |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1  | 0.10 | 0.00 | 145.30 | 25224754.0 | 3  | 1 | 0 | 2.25 | 445  | 725   |
| >tr J9NTK2 J9NTK2_CANLF J domain-containing protein OS=Canis lupus familiaris OX=9615 GN=DNAJC12 PE=4 SV=2                                      | 0.41 | 0.39 | 177.00 | 25186793.4 | 2  | 1 | 0 | 4.72 | 106  | 2310  |
| >tr F1PGK9 F1PGK9_CANLF ADAM metallopeptidase with thrombospondin type 1 motif 5 OS=Canis lupus familiaris OX=9615 GN=ADAMTS5 PE=4 SV=3         | 0.34 | 0.15 | 105.90 | 23566169.6 | 12 | 1 | 0 | 0.59 | 845  | 11956 |
| >sp E2RK33 GATC_CANLF Glutamyl-tRNA(Gln) amidotransferase subunit C, mitochondrial OS=Canis lupus familiaris OX=9615 GN=GATC PE=3 SV=1          | 0.21 | 0.19 | 180.00 | 23485546.1 | 2  | 1 | 0 | 2.58 | 155  | 39    |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 0.80 | 0.80 | 217.90 | 22514601.8 | 2  | 1 | 0 | 0.30 | 1342 | 5979  |
| >sp P21842 CMA1_CANLF Chymase OS=Canis lupus familiaris OX=9615 GN=CMA1 PE=1 SV=1   | 0.95 | 0.91 | 100.00 | 22126849.0 | 3  | 1 | 0 | 0.80 | 249  | 34    |
| >sp P21842 CMA1_CANLF Chymase OS=Canis lupus familiaris OX=9615 GN=CMA1 PE=1 SV=1   | 0.16 | 0.12 | 91.90  | 22061926.1 | 3  | 1 | 0 | 0.80 | 249  | 34    |
| >tr A0A5F4C9T8 A0A5F4C9T8_CANLF Inositol polyphosphate-5-phosphatase F OS=Canis lupus familiaris OX=9615 GN=INPP5F PE=4 SV=1                    | 0.20 | 0.18 | 28.00  | 21671971.6 | 2  | 1 | 0 | 3.55 | 761  | 6184  |
| >sp P62286 ASPM_CANLF Abnormal spindle-like microcephaly-associated protein homolog OS=Canis lupus familiaris OX=9615 GN=ASPM PE=2 SV=2         | 1.80 | 0.91 | 107.10 | 21549214.0 | 3  | 2 | 0 | 0.17 | 3469 | 677   |
| >tr A0A5F4D6G2 A0A5F4D6G2_CANLF SMG7 nonsense mediated mRNA decay factor OS=Canis lupus familiaris OX=9615 GN=SMG7 PE=4 SV=1                    | 0.29 | 0.27 | 235.60 | 21537147.8 | 2  | 1 | 0 | 0.43 | 1175 | 2075  |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1                           | 1.04 | 0.95 | 288.10 | 21278461.1 | 6  | 1 | 0 | 8.72 | 149  | 153   |
| >tr A0A5F4D8I6 A0A5F4D8I6_CANLF Phospholipase A2 receptor 1 OS=Canis lupus familiaris OX=9615 GN=PLA2R1 PE=4 SV=1                               | 0.71 | 0.62 | 146.00 | 21266479.1 | 6  | 1 | 0 | 0.50 | 1394 | 6796  |
| >tr F1PB65 F1PB65_CANLF RAD54 like 2 OS=Canis lupus familiaris OX=9615 GN=RAD54L2 PE=3 SV=2   | 0.78 | 0.78 | 130.30 | 21151961.3 | 1  | 1 | 0 | 0.55 | 1467 | 11575 |
| >tr F1PI09 F1PI09_CANLF Aldehyde oxidase OS=Canis lupus familiaris OX=9615 GN=AOX2 PE=3 SV=3  | 0.31 | 0.25 | 185.10 | 21142095.1 | 4  | 1 | 0 | 0.67 | 1347 | 21650 |
| >tr A0A5F4D9L5 A0A5F4D9L5_CANLF Acid phosphatase 3 OS=Canis lupus familiaris OX=9615 GN=ACP3 PE=4 SV=1  | 1.23 | 1.17 | 148.20 | 21108323.5 | 4  | 1 | 1 | 4.25 | 353  | 972   |

|   |      |      |        |            |    |   |   |       |      |       |
|---|------|------|--------|------------|----|---|---|-------|------|-------|
| >tr A0A5F4DHH0 A0A5F4DHH0_CANLF ATP binding cassette subfamily A member 1<br>OS=Canis lupus familiaris OX=9615 GN=ABCA1 PE=4 SV=1                                     | 0.17 | 0.02 | 60.10  | 21091293.3 | 10 | 1 | 0 | 0.23  | 2175 | 3709  |
| >tr E2RQR2 E2RQR2_CANLF Olfactory receptor family 13 subfamily P member 3 OS=Canis<br>lupus familiaris OX=9615 GN=OR13P3 PE=4 SV=2                                    | 0.37 | 0.37 | 93.00  | 20957177.5 | 1  | 1 | 0 | 6.73  | 312  | 15310 |
| >tr A0A5K1V0D8 A0A5K1V0D8_CANLF Sulfatase 2 OS=Canis lupus familiaris OX=9615<br>GN=SULF2 PE=3 SV=1   | 0.20 | 0.16 | 192.50 | 20823626.8 | 3  | 1 | 0 | 0.35  | 859  | 1192  |
| >tr A0A5F4C9V7 A0A5F4C9V7_CANLF Roundabout guidance receptor 3 OS=Canis lupus<br>familiaris OX=9615 GN=ROBO3 PE=4 SV=1  | 0.36 | 0.22 | 183.50 | 20693477.0 | 8  | 1 | 0 | 0.63  | 1421 | 3563  |
| >tr A0A5F4C0U6 A0A5F4C0U6_CANLF MLLT1 super elongation complex subunit OS=Canis<br>lupus familiaris OX=9615 GN=MLLT1 PE=4 SV=1  | 0.10 | 0.00 | 71.20  | 20456197.1 | 7  | 1 | 0 | 0.67  | 597  | 1602  |
| >sp Q8WN22 PRKDC_CANLF DNA-dependent protein kinase catalytic subunit OS=Canis<br>lupus familiaris OX=9615 GN=PRKDC PE=2 SV=1   | 1.60 | 1.58 | 107.40 | 20411930.6 | 2  | 1 | 0 | 0.05  | 4144 | 338   |
| >tr J9P7R3 J9P7R3_CANLF Transient receptor potential cation channel subfamily C member 4<br>associated protein OS=Canis lupus familiaris OX=9615 GN=TRPC4AP PE=4 SV=2 | 0.21 | 0.15 | 134.70 | 19970238.9 | 5  | 1 | 1 | 1.22  | 735  | 19673 |
| >tr A0A5F4D595 A0A5F4D595_CANLF Zinc finger protein 483 OS=Canis lupus familiaris<br>OX=9615 GN=ZNF483 PE=4 SV=1  | 0.39 | 0.39 | 32.70  | 19496810.4 | 1  | 1 | 0 | 3.60  | 750  | 3465  |
| >tr F1PRN0 F1PRN0_CANLF RRM domain-containing protein OS=Canis lupus familiaris<br>OX=9615 GN=LOC492092 PE=4 SV=3   | 0.89 | 0.87 | 157.80 | 19480278.6 | 2  | 1 | 0 | 0.87  | 918  | 37977 |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus<br>familiaris OX=9615 GN=NPC2 PE=2 SV=1  | 0.70 | 0.64 | 172.60 | 19345909.6 | 4  | 1 | 0 | 15.44 | 149  | 153   |
| >tr J9P432 J9P432_CANLF Glutamine--fructose-6-phosphate transaminase (isomerizing)<br>OS=Canis lupus familiaris OX=9615 GN=GFPT1 PE=4 SV=2                            | 0.34 | 0.28 | 126.80 | 18852000.2 | 4  | 1 | 0 | 1.18  | 677  | 7191  |
| >tr J9NYC7 J9NYC7_CANLF Dynein axonemal heavy chain 12 OS=Canis lupus familiaris<br>OX=9615 GN=DNAH12 PE=3 SV=1   | 0.92 | 0.92 | 168.10 | 18704884.2 | 1  | 1 | 0 | 0.33  | 3960 | 15992 |
| >tr J9NTX3 J9NTX3_CANLF SERTA domain containing 4 OS=Canis lupus familiaris<br>OX=9615 GN=SERTAD4 PE=4 SV=1   | 0.19 | 0.17 | 139.20 | 18564888.4 | 2  | 1 | 0 | 1.40  | 356  | 7323  |
| >tr F1PRN0 F1PRN0_CANLF RRM domain-containing protein OS=Canis lupus familiaris<br>OX=9615 GN=LOC492092 PE=4 SV=3   | 0.72 | 0.70 | 172.00 | 18551823.8 | 2  | 1 | 0 | 0.87  | 918  | 37977 |
| >tr A0A5F4DHB2 A0A5F4DHB2_CANLF Nuclear FMR1 interacting protein 2 OS=Canis<br>lupus familiaris OX=9615 GN=NUFIP2 PE=4 SV=1   | 0.14 | 0.12 | 77.00  | 18405584.9 | 2  | 1 | 1 | 0.97  | 721  | 8839  |
| >tr A0A5F4CS87 A0A5F4CS87_CANLF STE20 related adaptor alpha OS=Canis lupus<br>familiaris OX=9615 GN=STRADA PE=4 SV=1  | 0.41 | 0.41 | 166.90 | 17648561.6 | 1  | 1 | 0 | 2.08  | 336  | 14044 |
| >tr F1PIP2 F1PIP2_CANLF Guanylate cyclase OS=Canis lupus familiaris OX=9615 PE=3<br>SV=3  | 0.25 | 0.25 | 83.50  | 17641837.7 | 1  | 1 | 0 | 0.83  | 1085 | 12638 |
| >tr A0A5F4CNP4 A0A5F4CNP4_CANLF ADP ribosylation factor GTPase activating protein 3<br>OS=Canis lupus familiaris OX=9615 GN=ARFGAP3 PE=4 SV=1                         | 0.29 | 0.27 | 186.00 | 17577143.1 | 2  | 1 | 0 | 1.12  | 714  | 964   |
| >tr A0A5F4D7J3 A0A5F4D7J3_CANLF Non-specific serine/threonine protein kinase OS=Canis<br>lupus familiaris OX=9615 GN=CDC42BPA PE=3 SV=1                               | 2.57 | 2.55 | 250.20 | 17414356.9 | 2  | 1 | 0 | 0.22  | 1794 | 1069  |
| >tr J9P0B4 J9P0B4_CANLF Tudor domain containing 15 OS=Canis lupus familiaris OX=9615<br>GN=TDRD15 PE=4 SV=2   | 1.16 | 0.91 | 190.80 | 17385108.9 | 4  | 2 | 0 | 1.85  | 2105 | 4188  |
| >sp Q8WN22 PRKDC_CANLF DNA-dependent protein kinase catalytic subunit OS=Canis<br>lupus familiaris OX=9615 GN=PRKDC PE=2 SV=1   | 2.48 | 2.46 | 98.30  | 17372010.5 | 2  | 1 | 0 | 0.05  | 4144 | 338   |
| >tr A0A5F4CLI1 A0A5F4CLI1_CANLF Histone deacetylase 6 OS=Canis lupus familiaris<br>OX=9615 GN=HDAC6 PE=4 SV=1   | 0.82 | 0.82 | 162.50 | 16899203.5 | 1  | 1 | 0 | 0.43  | 1175 | 4057  |

|   |      |      |        |            |   |   |   |       |      |       |
|---|------|------|--------|------------|---|---|---|-------|------|-------|
| >tr A0A5F4CS87 A0A5F4CS87_CANLF STE20 related adaptor alpha OS=Canis lupus familiaris OX=9615 GN=STRADA PE=4 SV=1                                   | 0.10 | 0.00 | 172.70 | 16743131.7 | 1 | 1 | 0 | 2.08  | 336  | 14044 |
| >tr A0A5F4D7J3 A0A5F4D7J3_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=CDC42BPA PE=3 SV=1                | 0.82 | 0.80 | 217.80 | 16533068.0 | 2 | 1 | 0 | 0.22  | 1794 | 1069  |
| >tr E2R594 E2R594_CANLF Ring finger protein 167 OS=Canis lupus familiaris OX=9615 GN=RNFI67 PE=4 SV=3   | 0.10 | 0.00 | 108.20 | 16461454.3 | 1 | 1 | 1 | 19.23 | 130  | 16405 |
| >tr J9NYC7 J9NYC7_CANLF Dynein axonemal heavy chain 12 OS=Canis lupus familiaris OX=9615 GN=DNAH12 PE=3 SV=1  | 0.10 | 0.04 | 119.90 | 16448646.9 | 1 | 1 | 0 | 0.33  | 3960 | 15992 |
| >tr A0A5F4DCA4 A0A5F4DCA4_CANLF Reverse transcriptase domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=1                         | 0.41 | 0.39 | 159.50 | 16354722.1 | 2 | 1 | 0 | 0.31  | 978  | 860   |
| >tr A0A5F4CCE2 A0A5F4CCE2_CANLF Pappalysin 2 OS=Canis lupus familiaris OX=9615 GN=PAPPA2 PE=3 SV=1  | 0.27 | 0.27 | 180.00 | 16348970.5 | 1 | 1 | 0 | 0.81  | 1722 | 20443 |
| >sp Q6AW47 EST5A_CANLF Carboxylesterase 5A OS=Canis lupus familiaris OX=9615 GN=CES5A PE=2 SV=1   | 0.86 | 0.86 | 186.40 | 16101669.9 | 1 | 1 | 0 | 0.87  | 575  | 629   |
| >tr E2QWD0 E2QWD0_CANLF CAP-Gly domain containing linker protein 1 OS=Canis lupus familiaris OX=9615 GN=CLIP1 PE=4 SV=3                             | 0.74 | 0.74 | 143.80 | 16031700.5 | 1 | 1 | 0 | 0.86  | 1403 | 12547 |
| >tr A0A5F4BP40 A0A5F4BP40_CANLF Mitogen-activated protein kinase kinase kinase 1 OS=Canis lupus familiaris OX=9615 GN=MAP3K1 PE=4 SV=1              | 0.21 | 0.21 | 45.60  | 15743730.6 | 1 | 1 | 1 | 1.38  | 1671 | 15991 |
| >tr A0A5F4DFX0 A0A5F4DFX0_CANLF Exportin-T OS=Canis lupus familiaris OX=9615 GN=XPOT PE=3 SV=1  | 0.10 | 0.01 | 115.40 | 15713572.6 | 2 | 1 | 0 | 0.75  | 938  | 2329  |
| >tr A0A5F4DFX0 A0A5F4DFX0_CANLF Exportin-T OS=Canis lupus familiaris OX=9615 GN=XPOT PE=3 SV=1  | 0.10 | 0.00 | 124.60 | 15703857.1 | 2 | 1 | 0 | 0.75  | 938  | 2329  |
| >tr A0A5F4DHW1 A0A5F4DHW1_CANLF Pappalysin 2 OS=Canis lupus familiaris OX=9615 GN=PAPPA2 PE=4 SV=1  | 0.56 | 0.28 | 122.80 | 15694497.4 | 2 | 2 | 0 | 1.79  | 1680 | 22479 |
| >tr E2RN16 E2RN16_CANLF Mitogen-activated protein kinase kinase kinase 2 OS=Canis lupus familiaris OX=9615 GN=MAP3K2 PE=4 SV=2                      | 0.20 | 0.20 | 173.50 | 15468692.3 | 1 | 1 | 0 | 0.97  | 620  | 34325 |
| >tr A0A5F4CS87 A0A5F4CS87_CANLF STE20 related adaptor alpha OS=Canis lupus familiaris OX=9615 GN=STRADA PE=4 SV=1                                   | 0.23 | 0.23 | 165.70 | 15426344.8 | 1 | 1 | 0 | 2.08  | 336  | 14044 |
| >tr F1PCU5 F1PCU5_CANLF Methyltransf_11 domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC480074 PE=4 SV=3                          | 1.26 | 1.26 | 126.20 | 15398710.0 | 1 | 1 | 0 | 2.86  | 630  | 1484  |
| >tr J9NS28 J9NS28_CANLF RBR-type E3 ubiquitin transferase OS=Canis lupus familiaris OX=9615 GN=ANKIB1 PE=4 SV=2                                     | 0.13 | 0.07 | 35.60  | 15164556.5 | 4 | 1 | 0 | 2.33  | 988  | 26345 |
| >tr F1PBB5 F1PBB5_CANLF Dynein axonemal heavy chain 3 OS=Canis lupus familiaris OX=9615 GN=DNAH3 PE=3 SV=3  | 0.11 | 0.02 | 19.20  | 15138372.6 | 6 | 1 | 0 | 0.12  | 4054 | 1774  |
| >tr J9NS29 J9NS29_CANLF Cystatin domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC607874 PE=4 SV=2                                 | 0.81 | 0.81 | 183.90 | 15130133.6 | 1 | 1 | 0 | 6.39  | 313  | 30016 |
| >tr A0A5F4BZW4 A0A5F4BZW4_CANLF Malonyl-CoA decarboxylase OS=Canis lupus familiaris OX=9615 GN=MLYCD PE=4 SV=1                                      | 0.10 | 0.00 | 162.60 | 15074670.8 | 1 | 1 | 0 | 1.30  | 461  | 4809  |
| >tr A0A5F4C4Q5 A0A5F4C4Q5_CANLF ST6 N-acetylgalactosaminide alpha-2,6-sialyltransferase 1 OS=Canis lupus familiaris OX=9615 GN=ST6GALNAC1 PE=3 SV=1 | 0.29 | 0.29 | 63.40  | 15026002.7 | 1 | 1 | 0 | 1.76  | 683  | 1306  |
| >sp O46669 SCNAA_CANLF Sodium channel protein type 10 subunit alpha OS=Canis lupus familiaris OX=9615 GN=SCN10A PE=2 SV=1                           | 0.24 | 0.24 | 116.80 | 14939585.4 | 1 | 1 | 0 | 0.15  | 1962 | 90    |
| >tr E2RJS0 E2RJS0_CANLF Adaptor related protein complex 4 subunit epsilon 1 OS=Canis lupus familiaris OX=9615 GN=AP4E1 PE=4 SV=3                    | 0.22 | 0.22 | 122.20 | 14847484.3 | 1 | 1 | 0 | 0.53  | 1138 | 37586 |

|   |      |      |        |            |   |   |   |       |      |       |
|---|------|------|--------|------------|---|---|---|-------|------|-------|
| >tr F1PQC9 F1PQC9_CANLF Dynein regulatory complex protein 10 OS=Canis lupus familiaris OX=9615 GN=IQCD PE=3 SV=3                      | 0.10 | 0.10 | 183.60 | 14574910.7 | 1 | 1 | 0 | 0.89  | 451  | 1682  |
| >tr F1PCU5 F1PCU5_CANLF Methyltransf_11 domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC480074 PE=4 SV=3            | 0.66 | 0.66 | 121.70 | 14555416.2 | 1 | 1 | 0 | 2.86  | 630  | 1484  |
| >tr E2RK34 E2RK34_CANLF Cytochrome P450 family 2 subfamily S member 1 OS=Canis lupus familiaris OX=9615 GN=CYP2S1 PE=3 SV=3           | 0.18 | 0.18 | 124.60 | 14499180.0 | 1 | 1 | 0 | 1.35  | 669  | 7130  |
| >tr J9NZH4 J9NZH4_CANLF NTR domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC102154527 PE=3 SV=2                     | 0.10 | 0.01 | 116.60 | 14493173.9 | 1 | 1 | 0 | 8.60  | 221  | 39505 |
| >tr A0A5F4C7P9 A0A5F4C7P9_CANLF Beta-2-microglobulin OS=Canis lupus familiaris OX=9615 GN=B2M PE=4 SV=1                               | 0.93 | 0.93 | 156.60 | 14403347.3 | 1 | 1 | 0 | 12.15 | 107  | 10611 |
| >tr F6XM35 F6XM35_CANLF HECT-type E3 ubiquitin transferase OS=Canis lupus familiaris OX=9615 GN=HUWE1 PE=4 SV=2                       | 0.30 | 0.31 | 114.20 | 14316125.0 | 1 | 1 | 0 | 0.25  | 4399 | 1763  |
| >tr J9P2K4 J9P2K4_CANLF Transmembrane protein 117 OS=Canis lupus familiaris OX=9615 GN=TMEM117 PE=4 SV=2                              | 0.25 | 0.25 | 86.90  | 14257134.3 | 1 | 1 | 0 | 2.56  | 508  | 14687 |
| >tr J9P9K7 J9P9K7_CANLF Glycylpeptide N-tetradecanoyltransferase OS=Canis lupus familiaris OX=9615 GN=NMT2 PE=3 SV=2                  | 0.45 | 0.45 | 43.70  | 14130899.2 | 1 | 1 | 0 | 3.16  | 507  | 19368 |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1  | 0.58 | 0.42 | 225.00 | 14071262.5 | 7 | 2 | 0 | 9.09  | 110  | 41542 |
| >tr F1PAJ9 F1PAJ9_CANLF Adenylate cyclase type 5 OS=Canis lupus familiaris OX=9615 GN=ADCY5 PE=3 SV=3                                 | 1.40 | 1.40 | 111.50 | 13972157.6 | 1 | 1 | 0 | 2.24  | 1027 | 18306 |
| >tr F1PFP5 F1PFP5_CANLF Transporter OS=Canis lupus familiaris OX=9615 GN=LOC100856702 PE=3 SV=2                                       | 0.10 | 0.10 | 46.90  | 13952552.0 | 1 | 1 | 0 | 2.55  | 705  | 40807 |
| >tr E2QWZ4 E2QWZ4_CANLF Solute carrier family 34 member 3 OS=Canis lupus familiaris OX=9615 GN=SLC34A3 PE=3 SV=3                      | 0.18 | 0.18 | 99.70  | 13842171.6 | 1 | 1 | 0 | 2.35  | 255  | 26251 |
| >tr A0A5F4D967 A0A5F4D967_CANLF GLI family zinc finger 1 OS=Canis lupus familiaris OX=9615 GN=GLI1 PE=3 SV=1                          | 0.10 | 0.03 | 140.80 | 13768232.8 | 4 | 1 | 0 | 0.70  | 1139 | 11817 |
| >tr J9P366 J9P366_CANLF Ganglioside induced differentiation associated protein 2 OS=Canis lupus familiaris OX=9615 GN=GDAP2 PE=3 SV=2 | 0.15 | 0.15 | 174.30 | 13718512.3 | 1 | 1 | 0 | 2.82  | 497  | 9162  |
| >sp E2RDZ6 SIR5_CANLF NAD-dependent protein deacylase sirtuin-5, mitochondrial OS=Canis lupus familiaris OX=9615 GN=SIRT5 PE=3 SV=1   | 0.21 | 0.19 | 86.80  | 13537439.5 | 2 | 1 | 0 | 0.65  | 310  | 270   |
| >tr A0A5F4C7P9 A0A5F4C7P9_CANLF Beta-2-microglobulin OS=Canis lupus familiaris OX=9615 GN=B2M PE=4 SV=1                               | 0.95 | 0.95 | 152.70 | 13362339.2 | 1 | 1 | 0 | 12.15 | 107  | 10611 |
| >tr A0A5F4CUE8 A0A5F4CUE8_CANLF Senataxin OS=Canis lupus familiaris OX=9615 GN=SETX PE=4 SV=1   | 0.27 | 0.25 | 123.70 | 13270568.7 | 2 | 1 | 0 | 0.26  | 2645 | 1796  |
| >tr J9NZH4 J9NZH4_CANLF NTR domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC102154527 PE=3 SV=2                     | 0.10 | 0.04 | 104.10 | 13235937.8 | 1 | 1 | 0 | 8.60  | 221  | 39505 |
| >tr A0A5F4D952 A0A5F4D952_CANLF FAT atypical cadherin 1 OS=Canis lupus familiaris OX=9615 GN=FAT1 PE=4 SV=1                           | 0.29 | 0.30 | 150.90 | 13213103.5 | 1 | 1 | 0 | 0.26  | 4614 | 14224 |
| >tr F6PLX8 F6PLX8_CANLF Beta-defensin OS=Canis lupus familiaris OX=9615 GN=DEFB118 PE=3 SV=1  | 0.47 | 0.45 | 87.30  | 12974492.3 | 2 | 1 | 0 | 8.77  | 171  | 34287 |
| >tr F1PLV2 F1PLV2_CANLF Peptidyl-prolyl cis-trans isomerase OS=Canis lupus familiaris OX=9615 GN=CSNK1G1 PE=3 SV=3                    | 0.15 | 0.15 | 162.50 | 12935344.0 | 1 | 1 | 0 | 5.35  | 243  | 4290  |
| >tr F1PPP9 F1PPP9_CANLF Family with sequence similarity 135 member A OS=Canis lupus familiaris OX=9615 GN=FAM135A PE=3 SV=3           | 0.10 | 0.03 | 145.10 | 12729324.1 | 4 | 1 | 0 | 1.22  | 1399 | 6815  |

|  |      |      |        |            |   |   |   |      |       |       |
|--|------|------|--------|------------|---|---|---|------|-------|-------|
| >tr J9P3H8 J9P3H8_CANLF ATM interactor OS=Canis lupus familiaris OX=9615 GN=ATMIN PE=4 SV=2  | 0.13 | 0.02 | 56.20  | 12633306.2 | 7 | 1 | 0 | 0.58 | 863   | 882   |
| >sp E2RK33 GATC_CANLF Glutamyl-tRNA(Gln) amidotransferase subunit C, mitochondrial OS=Canis lupus familiaris OX=9615 GN=GATC PE=3 SV=1                         | 0.54 | 0.54 | 168.60 | 12410748.1 | 1 | 1 | 0 | 2.58 | 155   | 39    |
| >tr A0A5F4C1S8 A0A5F4C1S8_CANLF E3 ubiquitin-protein ligase CBL OS=Canis lupus familiaris OX=9615 GN=CBL PE=4 SV=1   | 0.10 | 0.10 | 176.30 | 12232430.2 | 1 | 1 | 0 | 0.39 | 773   | 1308  |
| >tr A0A5F4D0U7 A0A5F4D0U7_CANLF Structural maintenance of chromosomes flexible hinge domain containing 1 OS=Canis lupus familiaris OX=9615 GN=SMCHD1 PE=4 SV=1 | 0.14 | 0.14 | 51.80  | 12112787.3 | 1 | 1 | 1 | 0.62 | 3051  | 9634  |
| >tr A0A5F4DC96 A0A5F4DC96_CANLF Coiled-coil domain containing 178 OS=Canis lupus familiaris OX=9615 GN=CCDC178 PE=4 SV=1                                       | 0.10 | 0.00 | 19.00  | 11898572.3 | 1 | 1 | 0 | 0.37 | 807   | 32421 |
| >tr E2QX33 E2QX33_CANLF Coiled-coil and C2 domain containing 1A OS=Canis lupus familiaris OX=9615 GN=CC2D1A PE=3 SV=1  | 0.19 | 0.17 | 144.50 | 11795640.6 | 2 | 1 | 1 | 0.84 | 951   | 10961 |
| >tr A0A5F4BTW9 A0A5F4BTW9_CANLF Adhesion G protein-coupled receptor L2 OS=Canis lupus familiaris OX=9615 GN=ADGRL2 PE=4 SV=1                                   | 0.32 | 0.32 | 144.80 | 11648843.7 | 1 | 1 | 0 | 0.47 | 1474  | 2238  |
| >tr F1PJY1 F1PJY1_CANLF Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase OS=Canis lupus familiaris OX=9615 GN=ENGASE PE=3 SV=3                          | 0.10 | 0.00 | 183.00 | 11493761.4 | 5 | 2 | 2 | 1.74 | 690   | 32761 |
| >tr J9P3R7 J9P3R7_CANLF SCO-spondin OS=Canis lupus familiaris OX=9615 GN=SSPO PE=3 SV=2  | 0.10 | 0.00 | 126.10 | 11392323.2 | 5 | 1 | 1 | 0.23 | 5112  | 24898 |
| >tr A0A5F4BU36 A0A5F4BU36_CANLF Titin OS=Canis lupus familiaris OX=9615 GN=TTN PE=3 SV=1   | 0.15 | 0.15 | 107.90 | 11162151.6 | 2 | 1 | 0 | 0.06 | 27097 | 33785 |
| >tr A0A5F4C9F7 A0A5F4C9F7_CANLF Activating signal cointegrator 1 complex subunit 3 OS=Canis lupus familiaris OX=9615 GN=ASCC3 PE=3 SV=1                        | 0.21 | 0.21 | 199.70 | 11045232.0 | 1 | 1 | 0 | 0.60 | 2004  | 5494  |
| >tr E2R079 E2R079_CANLF Serpin family B member 2 OS=Canis lupus familiaris OX=9615 GN=SERPINB2 PE=3 SV=2   | 0.33 | 0.31 | 87.60  | 10936664.5 | 2 | 1 | 0 | 1.92 | 416   | 21385 |
| >tr F1P6B8 F1P6B8_CANLF Intraflagellar transport protein 57 homolog OS=Canis lupus familiaris OX=9615 GN=IFT57 PE=3 SV=3                                       | 0.24 | 0.24 | 229.70 | 10821822.7 | 1 | 1 | 0 | 0.83 | 482   | 4757  |
| >tr A0A5F4DKE8 A0A5F4DKE8_CANLF Suppression of tumorigenicity 7 like OS=Canis lupus familiaris OX=9615 GN=ST7L PE=3 SV=1                                       | 0.18 | 0.18 | 133.40 | 10820650.2 | 1 | 1 | 0 | 0.78 | 644   | 5269  |
| >tr H9GWY3 H9GWY3_CANLF Inter-alpha-trypsin inhibitor heavy chain 4 OS=Canis lupus familiaris OX=9615 GN=ITI4 PE=3 SV=3  | 1.09 | 1.07 | 294.40 | 10490136.4 | 2 | 1 | 0 | 0.54 | 925   | 1304  |
| >tr A0A5F4BQA2 A0A5F4BQA2_CANLF Dermatan sulfate epimerase OS=Canis lupus familiaris OX=9615 GN=DSE PE=3 SV=1  | 0.10 | 0.00 | 84.90  | 10466782.3 | 1 | 1 | 0 | 2.60 | 308   | 8924  |
| >tr F1PGK9 F1PGK9_CANLF ADAM metallopeptidase with thrombospondin type 1 motif 5 OS=Canis lupus familiaris OX=9615 GN=ADAMTS5 PE=4 SV=3                        | 0.10 | 0.02 | 32.80  | 10448788.8 | 5 | 1 | 0 | 0.59 | 845   | 11956 |
| >sp Q076A6 MYH1_CANLF Myosin-1 OS=Canis lupus familiaris OX=9615 GN=MYH1 PE=3 SV=2   | 0.21 | 0.21 | 136.00 | 10211826.4 | 1 | 1 | 0 | 0.15 | 1939  | 121   |
| >tr F1Q030 F1Q030_CANLF Ring finger protein 208 OS=Canis lupus familiaris OX=9615 GN=RNF208 PE=4 SV=3  | 0.17 | 0.18 | 30.00  | 9850180.4  | 1 | 1 | 1 | 9.81 | 265   | 27522 |
| >tr J9PB30 J9PB30_CANLF THAP domain-containing protein 1 OS=Canis lupus familiaris OX=9615 GN=THAP1 PE=3 SV=2  | 0.14 | 0.14 | 72.80  | 8958205.0  | 1 | 1 | 1 | 2.44 | 246   | 11070 |
| >tr F1PFZ5 F1PFZ5_CANLF Milk fat globule EGF and factor V/VIII domain containing OS=Canis lupus familiaris OX=9615 GN=MFG8 PE=4 SV=3                           | 0.46 | 0.46 | 194.00 | 8758445.0  | 1 | 1 | 0 | 1.87 | 428   | 7079  |
| >tr J9P7Y2 J9P7Y2_CANLF Angiotensin-converting enzyme OS=Canis lupus familiaris OX=9615 GN=ACE2 PE=3 SV=1  | 0.15 | 0.15 | 42.60  | 8676308.0  | 2 | 1 | 0 | 1.62 | 804   | 1041  |

|   |      |      |        |           |   |   |   |      |      |       |
|---|------|------|--------|-----------|---|---|---|------|------|-------|
| >tr E2QWB2 E2QWB2_CANLF Plastin 1 OS=Canis lupus familiaris OX=9615 GN=PLS1 PE=4 SV=2   | 0.41 | 0.39 | 134.20 | 8639749.5 | 2 | 1 | 0 | 1.91 | 629  | 25458 |
| >tr J9P912 J9P912_CANLF GRB10 interacting GYF protein 1 OS=Canis lupus familiaris OX=9615 GN=GIGYF1 PE=4 SV=2                                   | 0.30 | 0.30 | 5.70   | 8496941.6 | 1 | 1 | 0 | 4.39 | 683  | 18238 |
| >tr E2RHG5 E2RHG5_CANLF Nudix hydrolase 3 OS=Canis lupus familiaris OX=9615 GN=NUDT3 PE=4 SV=1  | 0.30 | 0.28 | 113.10 | 8358541.2 | 2 | 1 | 0 | 6.40 | 172  | 21894 |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                              | 2.28 | 2.20 | 387.10 | 8288276.3 | 5 | 1 | 1 | 4.55 | 198  | 41734 |
| >tr F1PFZ5 F1PFZ5_CANLF Milk fat globule EGF and factor V/VIII domain containing OS=Canis lupus familiaris OX=9615 GN=MFG8 PE=4 SV=3            | 0.21 | 0.21 | 193.10 | 8276897.2 | 1 | 1 | 0 | 1.87 | 428  | 7079  |
| >tr A0A5F4CMF9 A0A5F4CMF9_CANLF Cilia and flagella associated protein 65 OS=Canis lupus familiaris OX=9615 GN=CFAP65 PE=4 SV=1                  | 1.07 | 1.08 | 174.60 | 8276036.7 | 1 | 1 | 0 | 0.17 | 1789 | 4175  |
| >tr F1PBU5 F1PBU5_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=SMG1 PE=3 SV=3                        | 0.83 | 0.83 | 173.30 | 8268862.3 | 1 | 1 | 0 | 0.08 | 3634 | 6898  |
| >tr F1PJY1 F1PJY1_CANLF Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase OS=Canis lupus familiaris OX=9615 GN=ENGASE PE=3 SV=3           | 1.08 | 0.96 | 178.40 | 8211977.1 | 6 | 2 | 1 | 1.74 | 690  | 32761 |
| >tr F1PBU5 F1PBU5_CANLF Non-specific serine/threonine protein kinase OS=Canis lupus familiaris OX=9615 GN=SMG1 PE=3 SV=3                        | 1.22 | 1.22 | 163.80 | 8188124.9 | 1 | 1 | 0 | 0.08 | 3634 | 6898  |
| >tr F1PHQ0 F1PHQ0_CANLF Clathrin heavy chain OS=Canis lupus familiaris OX=9615 GN=CLTC PE=3 SV=3  | 0.10 | 0.10 | 117.90 | 8063892.1 | 1 | 1 | 1 | 0.65 | 1682 | 24646 |
| >sp Q5I2M8 TLR9_CANLF Toll-like receptor 9 OS=Canis lupus familiaris OX=9615 GN=TLR9 PE=2 SV=1  | 0.23 | 0.21 | 133.70 | 8030072.0 | 2 | 1 | 0 | 1.16 | 1032 | 382   |
| >tr F1PQC9 F1PQC9_CANLF Dynein regulatory complex protein 10 OS=Canis lupus familiaris OX=9615 GN=IQCD PE=3 SV=3                                | 0.22 | 0.23 | 193.30 | 7995980.7 | 1 | 1 | 0 | 0.89 | 451  | 1682  |
| >tr F1P8K0 F1P8K0_CANLF Extended synaptotagmin 2 OS=Canis lupus familiaris OX=9615 GN=ESYT2 PE=3 SV=3   | 0.17 | 0.17 | 85.20  | 7967931.3 | 1 | 1 | 0 | 1.74 | 804  | 19801 |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                              | 0.92 | 0.88 | 399.90 | 7883394.3 | 3 | 1 | 1 | 4.55 | 198  | 41734 |
| >tr E2RN56 E2RN56_CANLF Zinc finger CCCH-type containing 13 OS=Canis lupus familiaris OX=9615 GN=ZC3H13 PE=4 SV=3                               | 1.22 | 1.22 | 220.00 | 7605712.3 | 1 | 1 | 0 | 0.24 | 1660 | 1446  |
| >tr F1Q4I7 F1Q4I7_CANLF Beta-1,4-N-acetylgalactosaminyltransferase OS=Canis lupus familiaris OX=9615 GN=B4GALNT3 PE=3 SV=3                      | 0.21 | 0.21 | 232.10 | 7598279.6 | 1 | 1 | 0 | 0.40 | 1003 | 6004  |
| >tr A0A5F4DCA4 A0A5F4DCA4_CANLF Reverse transcriptase domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=1                     | 1.22 | 1.22 | 155.50 | 7526476.4 | 1 | 1 | 0 | 0.31 | 978  | 860   |
| >tr A0A5F4DCA4 A0A5F4DCA4_CANLF Reverse transcriptase domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=1                     | 0.10 | 0.02 | 159.50 | 7392861.2 | 1 | 1 | 0 | 0.31 | 978  | 860   |
| >tr A0A5F4C9V7 A0A5F4C9V7_CANLF Roundabout guidance receptor 3 OS=Canis lupus familiaris OX=9615 GN=ROBO3 PE=4 SV=1                             | 0.31 | 0.31 | 144.50 | 7349836.4 | 1 | 1 | 0 | 0.63 | 1421 | 3563  |
| >tr E2RPU3 E2RPU3_CANLF Ubiquitination factor E4A OS=Canis lupus familiaris OX=9615 GN=UBE4A PE=3 SV=2  | 0.21 | 0.19 | 70.70  | 7331525.3 | 2 | 1 | 0 | 1.28 | 1094 | 4207  |
| >tr A0A5F4D7Y5 A0A5F4D7Y5_CANLF Pleckstrin homology, MyTH4 and FERM domain containing H1 OS=Canis lupus familiaris OX=9615 GN=PLEKHH1 PE=4 SV=1 | 0.26 | 0.22 | 86.50  | 7286984.7 | 3 | 1 | 0 | 0.30 | 1342 | 5979  |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                              | 0.89 | 0.85 | 397.80 | 7231364.2 | 3 | 1 | 1 | 4.55 | 198  | 41734 |

|   |      |      |        |           |   |   |   |      |      |       |
|---|------|------|--------|-----------|---|---|---|------|------|-------|
| >tr E2RF02 E2RF02_CANLF Ubiquitin protein ligase E3 component n-recognin 4 OS=Canis lupus familiaris OX=9615 GN=UBR4 PE=3 SV=2                            | 0.16 | 0.15 | 113.10 | 7013691.8 | 2 | 1 | 0 | 0.19 | 5192 | 7776  |
| >tr J9P3H8 J9P3H8_CANLF ATM interactor OS=Canis lupus familiaris OX=9615 GN=ATMIN PE=4 SV=2   | 0.22 | 0.15 | 39.10  | 6930331.9 | 5 | 1 | 0 | 0.58 | 863  | 882   |
| >tr J9NS29 J9NS29_CANLF Cystatin domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC607874 PE=4 SV=2                                       | 1.13 | 0.91 | 75.00  | 6825633.6 | 2 | 2 | 0 | 9.27 | 313  | 30016 |
| >sp Q75ZY9 MET_CANLF Hepatocyte growth factor receptor OS=Canis lupus familiaris OX=9615 GN=MET PE=1 SV=1   | 0.39 | 0.39 | 157.00 | 6825360.6 | 1 | 1 | 0 | 0.22 | 1382 | 161   |
| >tr F1PPP9 F1PPP9_CANLF Family with sequence similarity 135 member A OS=Canis lupus familiaris OX=9615 GN=FAM135A PE=3 SV=3                               | 1.26 | 1.18 | 119.50 | 6795483.0 | 5 | 1 | 0 | 1.22 | 1399 | 6815  |
| >tr J9NSS6 J9NSS6_CANLF DNA helicase OS=Canis lupus familiaris OX=9615 GN=CHD2 PE=4 SV=2  | 0.22 | 0.15 | 73.20  | 6784136.8 | 5 | 1 | 0 | 0.28 | 1780 | 1264  |
| >tr F1Q1J0 F1Q1J0_CANLF DIX domain containing 1 OS=Canis lupus familiaris OX=9615 GN=DIXDC1 PE=4 SV=2   | 0.23 | 0.23 | 207.60 | 6680988.4 | 1 | 1 | 0 | 0.73 | 683  | 3850  |
| >sp Q28894 WFDC2_CANLF WAP four-disulfide core domain protein 2 OS=Canis lupus familiaris OX=9615 GN=WFDC2 PE=2 SV=1                                      | 2.84 | 2.78 | 406.40 | 6491878.1 | 4 | 1 | 0 | 6.45 | 124  | 53    |
| >tr J9P2T7 J9P2T7_CANLF 26S proteasome non-ATPase regulatory subunit 5 OS=Canis lupus familiaris OX=9615 PE=4 SV=1  | 1.54 | 1.54 | 116.00 | 5896750.8 | 1 | 1 | 0 | 1.95 | 461  | 23870 |
| >tr J9P432 J9P432_CANLF Glutamine--fructose-6-phosphate transaminase (isomerizing) OS=Canis lupus familiaris OX=9615 GN=GFPT1 PE=4 SV=2                   | 0.33 | 0.29 | 58.20  | 5884831.8 | 3 | 1 | 0 | 1.18 | 677  | 7191  |
| >tr E2RIV7 E2RIV7_CANLF Syntrophin alpha 1 OS=Canis lupus familiaris OX=9615 GN=SNTA1 PE=3 SV=3   | 0.10 | 0.00 | 41.50  | 5638575.8 | 3 | 1 | 1 | 1.03 | 486  | 34454 |
| >sp Q9XSU7 RL27_CANLF 60S ribosomal protein L27 OS=Canis lupus familiaris OX=9615 GN=RPL27 PE=2 SV=3  | 0.10 | 0.02 | 35.00  | 5589067.7 | 4 | 1 | 0 | 3.68 | 136  | 314   |
| >sp Q9GL25 ESPB1_CANLF Epididymal sperm-binding protein 1 OS=Canis lupus familiaris OX=9615 GN=ELSPBP1 PE=1 SV=1  | 0.22 | 0.20 | 108.30 | 5246003.2 | 2 | 1 | 1 | 3.67 | 245  | 36    |
| >tr A0A5F4DHT9 A0A5F4DHT9_CANLF Neurobeachin like 1 OS=Canis lupus familiaris OX=9615 GN=NBEAL1 PE=3 SV=1   | 0.21 | 0.19 | 6.40   | 5245571.7 | 2 | 1 | 0 | 0.23 | 2653 | 3732  |
| >tr J9P2T7 J9P2T7_CANLF 26S proteasome non-ATPase regulatory subunit 5 OS=Canis lupus familiaris OX=9615 PE=4 SV=1  | 1.19 | 1.19 | 122.00 | 5155796.4 | 1 | 1 | 0 | 1.95 | 461  | 23870 |
| >tr J9P432 J9P432_CANLF Glutamine--fructose-6-phosphate transaminase (isomerizing) OS=Canis lupus familiaris OX=9615 GN=GFPT1 PE=4 SV=2                   | 1.19 | 1.19 | 116.50 | 4938685.4 | 1 | 1 | 0 | 1.18 | 677  | 7191  |
| >sp Q05052 OST48_CANLF Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit OS=Canis lupus familiaris OX=9615 GN=DDOST PE=1 SV=1 | 0.91 | 0.89 | 72.10  | 4899209.3 | 2 | 1 | 0 | 2.47 | 445  | 254   |
| >tr E2R868 E2R868_CANLF [histone H4]-N-methyl-L-lysine20 N-methyltransferase KMT5B OS=Canis lupus familiaris OX=9615 GN=KMT5B PE=4 SV=3                   | 0.10 | 0.02 | 46.30  | 4869575.4 | 2 | 2 | 1 | 1.13 | 885  | 7704  |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2  | 2.63 | 2.61 | 295.20 | 4845940.0 | 2 | 1 | 1 | 4.55 | 198  | 41734 |
| >tr A0A5F4DGF5 A0A5F4DGF5_CANLF Alkaline phosphatase OS=Canis lupus familiaris OX=9615 GN=ALPL PE=3 SV=1  | 2.05 | 2.03 | 266.90 | 4834747.3 | 2 | 1 | 0 | 2.45 | 572  | 6357  |
| >tr A0A5F4DDV5 A0A5F4DDV5_CANLF SMG5 nonsense mediated mRNA decay factor OS=Canis lupus familiaris OX=9615 GN=SMG5 PE=4 SV=1                              | 0.18 | 0.18 | 51.60  | 4803540.3 | 1 | 1 | 0 | 0.76 | 1046 | 7629  |
| >tr E2R264 E2R264_CANLF HAUS augmin like complex subunit 8 OS=Canis lupus familiaris OX=9615 GN=HAUS8 PE=4 SV=2   | 0.30 | 0.30 | 96.80  | 4797075.3 | 1 | 1 | 0 | 2.93 | 376  | 14074 |

|   |      |      |        |           |   |   |   |      |      |       |
|---|------|------|--------|-----------|---|---|---|------|------|-------|
| >tr F1P8S5 F1P8S5_CANLF Retrotransposon Gag like 1 OS=Canis lupus familiaris OX=9615 GN=RTL1 PE=4 SV=2                                    | 0.23 | 0.23 | 64.40  | 4773031.4 | 1 | 1 | 0 | 0.74 | 1347 | 39404 |
| >tr J9P432 J9P432_CANLF Glutamine--fructose-6-phosphate transaminase (isomerizing) OS=Canis lupus familiaris OX=9615 GN=GFPT1 PE=4 SV=2   | 0.92 | 0.92 | 59.60  | 4750361.1 | 1 | 1 | 0 | 1.18 | 677  | 7191  |
| >tr A0A5F4D8I6 A0A5F4D8I6_CANLF Phospholipase A2 receptor 1 OS=Canis lupus familiaris OX=9615 GN=PLA2R1 PE=4 SV=1                         | 0.28 | 0.28 | 129.70 | 4718805.4 | 1 | 1 | 1 | 0.50 | 1394 | 6796  |
| >sp Q5JZQ9 CLN5_CANLF Ceroid-lipofuscinosis neuronal protein 5 OS=Canis lupus familiaris OX=9615 GN=CLN5 PE=2 SV=1                        | 1.08 | 1.08 | 105.00 | 4604410.2 | 1 | 1 | 0 | 1.14 | 350  | 651   |
| >tr F1PBJ1 F1PBJ1_CANLF Methylcytosine dioxygenase TET OS=Canis lupus familiaris OX=9615 GN=TET3 PE=3 SV=2                                | 0.10 | 0.02 | 69.90  | 4573564.7 | 2 | 1 | 0 | 0.28 | 1795 | 1529  |
| >tr F1PYS8 F1PYS8_CANLF Olfactory receptor OS=Canis lupus familiaris OX=9615 GN=OR5P6 PE=3 SV=3   | 0.19 | 0.19 | 65.00  | 4442480.3 | 1 | 1 | 1 | 6.69 | 314  | 20945 |
| >sp P23685 NAC1_CANLF Sodium/calcium exchanger 1 OS=Canis lupus familiaris OX=9615 GN=SLC8A1 PE=1 SV=1                                    | 0.26 | 0.27 | 73.90  | 4423626.8 | 1 | 1 | 0 | 1.03 | 970  | 764   |
| >tr F1P8S0 F1P8S0_CANLF GPRIN family member 3 OS=Canis lupus familiaris OX=9615 GN=GPRIN3 PE=4 SV=2                                       | 0.39 | 0.40 | 55.70  | 4261456.3 | 1 | 1 | 0 | 1.42 | 776  | 30471 |
| >sp P25473 CLUS_CANLF Clusterin OS=Canis lupus familiaris OX=9615 GN=CLU PE=2 SV=1  | 0.15 | 0.15 | 102.50 | 4189861.4 | 1 | 1 | 0 | 0.90 | 445  | 725   |
| >tr E2RIN4 E2RIN4_CANLF Endoribonuclease Dicer OS=Canis lupus familiaris OX=9615 GN=DICER1 PE=3 SV=2                                      | 0.22 | 0.22 | 42.30  | 4165387.4 | 1 | 1 | 0 | 0.52 | 1923 | 3285  |
| >tr E2RH82 E2RH82_CANLF DRY_EERY domain-containing protein OS=Canis lupus familiaris OX=9615 GN=CLASRP PE=4 SV=3                          | 0.88 | 0.88 | 102.20 | 4162716.4 | 1 | 1 | 0 | 0.91 | 656  | 2531  |
| >tr A0A5F4D0F5 A0A5F4D0F5_CANLF Ring finger protein 24 OS=Canis lupus familiaris OX=9615 GN=RNF24 PE=4 SV=1                               | 0.39 | 0.39 | 74.50  | 4122591.0 | 1 | 1 | 0 | 7.64 | 144  | 7273  |
| >tr E2RSI6 E2RSI6_CANLF Ezrin OS=Canis lupus familiaris OX=9615 GN=EZR PE=4 SV=1  | 0.41 | 0.41 | 111.40 | 3975779.6 | 1 | 1 | 0 | 1.54 | 586  | 15650 |
| >tr A0A5F4CLN6 A0A5F4CLN6_CANLF DLG associated protein 4 OS=Canis lupus familiaris OX=9615 GN=DLGAP4 PE=3 SV=1                            | 0.27 | 0.27 | 35.40  | 3800979.2 | 1 | 1 | 0 | 3.04 | 461  | 7940  |
| >tr J9P2T7 J9P2T7_CANLF 26S proteasome non-ATPase regulatory subunit 5 OS=Canis lupus familiaris OX=9615 PE=4 SV=1                        | 0.24 | 0.24 | 105.80 | 3783122.6 | 1 | 1 | 0 | 1.95 | 461  | 23870 |
| >tr E2RM62 E2RM62_CANLF FAT atypical cadherin 2 OS=Canis lupus familiaris OX=9615 GN=FAT2 PE=4 SV=1                                       | 0.23 | 0.23 | 65.00  | 3771599.7 | 1 | 1 | 0 | 0.34 | 4354 | 8419  |
| >tr J9P883 J9P883_CANLF Structural maintenance of chromosomes protein 5 OS=Canis lupus familiaris OX=9615 GN=SMC5 PE=3 SV=1               | 0.23 | 0.23 | 118.70 | 3688528.9 | 1 | 1 | 0 | 0.63 | 1106 | 5004  |
| >tr E2RTL2 E2RTL2_CANLF Tubulin tyrosine ligase like 6 OS=Canis lupus familiaris OX=9615 GN=TTLL6 PE=4 SV=3                               | 0.38 | 0.39 | 46.60  | 3677553.7 | 1 | 1 | 0 | 0.60 | 827  | 2703  |
| >tr F1PB88 F1PB88_CANLF Nik related kinase OS=Canis lupus familiaris OX=9615 GN=NRK PE=4 SV=3   | 0.92 | 0.93 | 93.00  | 3617672.0 | 1 | 1 | 0 | 0.46 | 1522 | 3609  |
| >tr F1Q3K9 F1Q3K9_CANLF Activator of transcription and developmental regulator AUTS2 OS=Canis lupus familiaris OX=9615 GN=AUTS2 PE=4 SV=3 | 0.15 | 0.15 | 102.80 | 3578840.3 | 1 | 1 | 0 | 0.87 | 1029 | 9473  |
| >tr J9P2T7 J9P2T7_CANLF 26S proteasome non-ATPase regulatory subunit 5 OS=Canis lupus familiaris OX=9615 PE=4 SV=1                        | 0.45 | 0.45 | 95.10  | 3485271.8 | 1 | 1 | 0 | 1.95 | 461  | 23870 |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                        | 1.85 | 1.81 | 251.00 | 3411153.5 | 3 | 1 | 1 | 4.55 | 198  | 41734 |
| >tr A0A5F4C745 A0A5F4C745_CANLF HECT-type E3 ubiquitin transferase OS=Canis lupus familiaris OX=9615 GN=HERC2 PE=4 SV=1                   | 0.10 | 0.02 | 47.00  | 3331439.9 | 2 | 1 | 0 | 0.10 | 4862 | 967   |

|   |      |      |        |           |    |   |   |       |      |       |
|---|------|------|--------|-----------|----|---|---|-------|------|-------|
| >tr F1P719 F1P719_CANLF EH domain containing 4 OS=Canis lupus familiaris OX=9615 GN=EHD4 PE=4 SV=2                                      | 0.96 | 0.96 | 41.20  | 3331432.8 | 1  | 1 | 0 | 1.85  | 541  | 8517  |
| >tr E2R1K2 E2R1K2_CANLF RAB, member RAS oncogene family like 6 OS=Canis lupus familiaris OX=9615 GN=RABL6 PE=4 SV=1                     | 0.10 | 0.00 | 11.30  | 3314552.9 | 4  | 1 | 0 | 0.70  | 715  | 6632  |
| >tr A0A5F4C2W9 A0A5F4C2W9_CANLF Methyl-CpG binding domain protein 1 OS=Canis lupus familiaris OX=9615 GN=MBD1 PE=4 SV=1                 | 0.26 | 0.26 | 114.50 | 3212872.2 | 1  | 1 | 0 | 1.71  | 703  | 14519 |
| >tr A0A5F4C3H5 A0A5F4C3H5_CANLF Purine rich element binding protein G OS=Canis lupus familiaris OX=9615 GN=PURG PE=3 SV=1               | 0.15 | 0.15 | 90.00  | 3150858.2 | 1  | 1 | 0 | 2.82  | 319  | 1070  |
| >tr J9P6W8 J9P6W8_CANLF Chromobox 8 OS=Canis lupus familiaris OX=9615 GN=CBX8 PE=4 SV=2   | 0.21 | 0.22 | 29.90  | 2783344.6 | 1  | 1 | 1 | 2.99  | 368  | 19169 |
| >tr H9GWH3 H9GWH3_CANLF LRRC37AB_C domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC491436 PE=4 SV=3                   | 0.24 | 0.24 | 137.30 | 2675078.4 | 1  | 1 | 0 | 0.75  | 796  | 5712  |
| >tr J9P2D3 J9P2D3_CANLF Alpha kinase 3 OS=Canis lupus familiaris OX=9615 GN=ALPK3 PE=4 SV=2   | 0.15 | 0.15 | 106.30 | 2518644.1 | 1  | 1 | 0 | 0.50  | 1616 | 5104  |
| >tr J9NUT9 J9NUT9_CANLF Pericentrin OS=Canis lupus familiaris OX=9615 GN=PCNT PE=4 SV=2   | 0.13 | 0.14 | 162.10 | 2414689.7 | 1  | 1 | 0 | 0.19  | 3208 | 18609 |
| >tr A0A5F4CLU1 A0A5F4CLU1_CANLF Superoxide dismutase [Cu-Zn] OS=Canis lupus familiaris OX=9615 GN=SOD1 PE=3 SV=1                        | 0.40 | 0.40 | 79.20  | 2410644.2 | 1  | 1 | 0 | 7.09  | 141  | 25417 |
| >tr E2RG75 E2RG75_CANLF Inactive ribonuclease-like protein 9 OS=Canis lupus familiaris OX=9615 GN=RNASE9 PE=3 SV=2                      | 0.66 | 0.66 | 301.50 | 2181445.8 | 1  | 1 | 1 | 4.55  | 198  | 41734 |
| >tr E2R868 E2R868_CANLF [histone H4]-N-methyl-L-lysine20 N-methyltransferase KMT5B OS=Canis lupus familiaris OX=9615 GN=KMT5B PE=4 SV=3 | 0.78 | 0.78 | 51.80  | 2150072.2 | 1  | 1 | 0 | 0.56  | 885  | 7704  |
| >tr A0A5F4C2A7 A0A5F4C2A7_CANLF SECIS binding protein 2 OS=Canis lupus familiaris OX=9615 GN=SECISBP2 PE=4 SV=1                         | 0.34 | 0.34 | 163.50 | 2081362.1 | 1  | 1 | 0 | 1.39  | 863  | 11966 |
| >tr A0A5F4CGA0 A0A5F4CGA0_CANLF IRG-type G domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LOC481472 PE=3 SV=1           | 0.18 | 0.18 | 108.40 | 2002421.3 | 1  | 1 | 0 | 1.23  | 408  | 33545 |
| >tr J9NSS6 J9NSS6_CANLF DNA helicase OS=Canis lupus familiaris OX=9615 GN=CHD2 PE=4 SV=2  | 0.10 | 0.02 | 30.80  | 1774003.3 | 2  | 1 | 0 | 0.28  | 1780 | 1264  |
| >tr A0A5F4BZ61 A0A5F4BZ61_CANLF G_PROTEIN_RECEP_F1_2 domain-containing protein OS=Canis lupus familiaris OX=9615 GN=OR5D13 PE=4 SV=1    | 0.10 | 0.02 | 26.40  | 1711126.5 | 1  | 1 | 0 | 1.70  | 294  | 37537 |
| >tr Q9XSV4 Q9XSV4_CANLF CE10 protein OS=Canis lupus familiaris OX=9615 GN=ce10 PE=2 SV=1  | 4.38 | 3.15 | 337.30 | 1595297.1 | 18 | 2 | 0 | 9.09  | 110  | 41542 |
| >tr F1PI09 F1PI09_CANLF Aldehyde oxidase OS=Canis lupus familiaris OX=9615 GN=AOX2 PE=3 SV=3  | 0.21 | 0.21 | 163.90 | 1245918.8 | 1  | 1 | 0 | 0.67  | 1347 | 21650 |
| >tr F1PR54 F1PR54_CANLF Lactotransferrin OS=Canis lupus familiaris OX=9615 GN=LTF PE=3 SV=1   | 4.15 | 3.57 | 370.70 | 1178722.5 | 12 | 2 | 0 | 3.95  | 708  | 40436 |
| >sp O18840 ACTB_CANLF Actin, cytoplasmic 1 OS=Canis lupus familiaris OX=9615 GN=ACTB PE=2 SV=3  | 4.24 | 1.67 | 271.40 | 1168988.9 | 7  | 3 | 0 | 12.00 | 375  | 642   |
| >sp Q28279 CNGA1_CANLF cGMP-gated cation channel alpha-1 OS=Canis lupus familiaris OX=9615 GN=CNGA1 PE=2 SV=1                           | 0.10 | 0.09 | 138.90 | 1020267.9 | 1  | 1 | 0 | 0.58  | 691  | 455   |
| >tr F1PKS8 F1PKS8_CANLF Anoctamin OS=Canis lupus familiaris OX=9615 GN=VWF PE=3 SV=3  | 0.36 | 0.34 | 129.60 | 1005732.9 | 2  | 1 | 1 | 1.61  | 992  | 42310 |
| >tr A0A5F4CYU0 A0A5F4CYU0_CANLF RAS and EF-hand domain containing OS=Canis lupus familiaris OX=9615 GN=RASEF PE=4 SV=1                  | 0.15 | 0.15 | 49.40  | 992527.8  | 1  | 1 | 0 | 0.50  | 795  | 864   |

|  |      |      |        |          |   |   |   |       |      |       |
|--|------|------|--------|----------|---|---|---|-------|------|-------|
| >tr E2RCT1 E2RCT1_CANLF WAP domain-containing protein OS=Canis lupus familiaris OX=9615 PE=4 SV=2  | 3.13 | 2.03 | 198.50 | 789288.7 | 8 | 2 | 0 | 14.66 | 116  | 21717 |
| >tr F1PUY9 F1PUY9_CANLF Mucin 4, cell surface associated OS=Canis lupus familiaris OX=9615 GN=MUC4 PE=4 SV=3                                 | 0.15 | 0.15 | 19.20  | 662103.3 | 1 | 1 | 0 | 1.77  | 1132 | 28376 |
| >sp Q9XSU7 RL27_CANLF 60S ribosomal protein L27 OS=Canis lupus familiaris OX=9615 GN=RPL27 PE=2 SV=3   | 0.10 | 0.02 | 8.60   | 658805.3 | 1 | 1 | 0 | 3.68  | 136  | 314   |
| >sp Q9XS65 PTGDS_CANLF Prostaglandin-H2 D-isomerase OS=Canis lupus familiaris OX=9615 GN=PTGDS PE=2 SV=1                                     | 0.99 | 0.75 | 209.10 | 503395.2 | 5 | 2 | 1 | 16.23 | 191  | 165   |
| >tr A0A5F4D304 A0A5F4D304_CANLF Ring finger protein 112 OS=Canis lupus familiaris OX=9615 GN=RNF112 PE=3 SV=1                                | 0.23 | 0.23 | 37.20  | 426238.2 | 1 | 1 | 0 | 1.49  | 871  | 5762  |
| >tr A0A5F4C5N3 A0A5F4C5N3_CANLF Signal induced proliferation associated 1 like 2 OS=Canis lupus familiaris OX=9615 GN=SIPA1L2 PE=4 SV=1      | 0.27 | 0.25 | 171.50 | 421468.7 | 2 | 1 | 0 | 0.24  | 1676 | 5347  |
| >tr E2R6E0 E2R6E0_CANLF Lipocln_cytosolic_FA-bd_dom domain-containing protein OS=Canis lupus familiaris OX=9615 GN=LCNL1 PE=3 SV=2           | 3.36 | 2.32 | 138.90 | 389301.4 | 5 | 2 | 0 | 6.35  | 299  | 1932  |
| >tr F1P6L3 F1P6L3_CANLF Junctional cadherin 5 associated OS=Canis lupus familiaris OX=9615 GN=JCAD PE=4 SV=2                                 | 0.51 | 0.51 | 87.60  | 335206.3 | 1 | 1 | 1 | 0.66  | 1364 | 44204 |
| >tr E2R203 E2R203_CANLF Ring finger protein 216 OS=Canis lupus familiaris OX=9615 GN=RNF216 PE=4 SV=2  | 0.27 | 0.27 | 8.20   | 318557.4 | 1 | 1 | 0 | 1.29  | 927  | 32362 |
| >tr F1P985 F1P985_CANLF Tumor protein p53 binding protein 2 OS=Canis lupus familiaris OX=9615 GN=TP53BP2 PE=4 SV=3                           | 0.10 | 0.10 | 38.90  | 203003.6 | 1 | 1 | 1 | 0.75  | 1200 | 2639  |
| >tr A0A5F4CCD0 A0A5F4CCD0_CANLF Cysteine rich secretory protein 2 OS=Canis lupus familiaris OX=9615 GN=CRISP2 PE=3 SV=1                      | 0.72 | 0.70 | 82.30  | 176461.5 | 2 | 1 | 0 | 4.82  | 311  | 11017 |
| >tr F1Q013 F1Q013_CANLF Glucoside xylosyltransferase 2 OS=Canis lupus familiaris OX=9615 GN=GXYLT2 PE=4 SV=3                                 | 0.17 | 0.15 | 26.50  | 169490.2 | 2 | 1 | 1 | 4.07  | 442  | 27211 |
| >tr F1PS03 F1PS03_CANLF 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma OS=Canis lupus familiaris OX=9615 GN=PLCG1 PE=4 SV=2 | 0.60 | 0.60 | 36.90  | 111264.3 | 1 | 1 | 0 | 1.23  | 1217 | 6493  |
| >tr F1PL65 F1PL65_CANLF KIAA1217 OS=Canis lupus familiaris OX=9615 GN=KIAA1217 PE=4 SV=3   | 0.14 | 0.15 | 104.70 | 109957.5 | 1 | 1 | 1 | 0.80  | 1997 | 3670  |
| >tr A0A5F4CHU9 A0A5F4CHU9_CANLF E1A binding protein p400 OS=Canis lupus familiaris OX=9615 GN=EP400 PE=4 SV=1                                | 0.18 | 0.18 | 25.80  | 96280.8  | 1 | 1 | 1 | 0.70  | 3002 | 5590  |
| >tr A0A5F4C9W6 A0A5F4C9W6_CANLF Armadillo like helical domain containing 3 OS=Canis lupus familiaris OX=9615 GN=ARMH3 PE=4 SV=1              | 0.32 | 0.32 | 19.10  | 92607.9  | 1 | 1 | 1 | 2.30  | 697  | 22893 |
| >tr A0A5F4BP01 A0A5F4BP01_CANLF Cyclin dependent kinase like 5 OS=Canis lupus familiaris OX=9615 GN=CDKL5 PE=4 SV=1                          | 0.14 | 0.15 | 25.70  | 90145.4  | 1 | 1 | 1 | 1.60  | 1001 | 930   |
| >tr A0A5F4CB26 A0A5F4CB26_CANLF F-box protein 33 OS=Canis lupus familiaris OX=9615 GN=FBXO33 PE=4 SV=1                                       | 0.34 | 0.34 | 64.20  | 84564.9  | 1 | 1 | 0 | 1.90  | 525  | 9458  |
| >sp P49822 ALBU_CANLF Albumin OS=Canis lupus familiaris OX=9615 GN=ALB PE=1 SV=3   | 1.14 | 1.14 | 20.90  | 84546.2  | 1 | 1 | 0 | 2.80  | 608  | 490   |
| >tr A0A5F4CZX8 A0A5F4CZX8_CANLF Exocyst complex component 7 OS=Canis lupus familiaris OX=9615 GN=EXOC7 PE=3 SV=1                             | 0.31 | 0.31 | 8.90   | 80200.2  | 1 | 1 | 0 | 1.69  | 890  | 9605  |
| >tr F1PJP1 F1PJP1_CANLF Dynein axonemal heavy chain 11 OS=Canis lupus familiaris OX=9615 GN=DNAH11 PE=3 SV=3                                 | 0.30 | 0.30 | 17.70  | 79011.7  | 1 | 1 | 0 | 0.35  | 4519 | 42705 |
| >tr A0A5F4D7B4 A0A5F4D7B4_CANLF SUI1 domain-containing protein OS=Canis lupus familiaris OX=9615 PE=3 SV=1                                   | 0.30 | 0.30 | 5.50   | 78605.4  | 1 | 1 | 0 | 10.91 | 165  | 38637 |

|   |      |      |        |         |   |   |   |      |      |       |
|---|------|------|--------|---------|---|---|---|------|------|-------|
| >tr E2RNJ7 E2RNJ7_CANLF ETS variant transcription factor 6 OS=Canis lupus familiaris OX=9615 GN=ETV6 PE=3 SV=2            | 0.38 | 0.38 | 66.40  | 76486.0 | 1 | 1 | 0 | 1.55 | 452  | 3147  |
| >tr E2RI36 E2RI36_CANLF Nuclear transcription factor, X-box binding 1 OS=Canis lupus familiaris OX=9615 GN=NFX1 PE=3 SV=3 | 1.28 | 1.28 | 109.40 | 76468.1 | 1 | 1 | 0 | 0.89 | 1118 | 13894 |
| >tr E2RDC9 E2RDC9_CANLF Family with sequence similarity 53 member A OS=Canis lupus familiaris OX=9615 GN=FAM53A PE=3 SV=2 | 0.32 | 0.32 | 92.50  | 76412.4 | 1 | 1 | 0 | 3.50 | 371  | 11515 |
| >tr A0A5F4DLH0 A0A5F4DLH0_CANLF Cyclin-C OS=Canis lupus familiaris OX=9615 GN=CCNC PE=3 SV=1                              | 0.32 | 0.32 | 22.30  | 76145.2 | 1 | 1 | 0 | 4.43 | 271  | 17674 |
| >sp Q28895 NPC2_CANLF NPC intracellular cholesterol transporter 2 OS=Canis lupus familiaris OX=9615 GN=NPC2 PE=2 SV=1     | 1.06 | 1.06 | 76.10  | 75676.8 | 1 | 1 | 0 | 6.04 | 149  | 153   |
| >tr A0A5F4BZB8 A0A5F4BZB8_CANLF Supervillin OS=Canis lupus familiaris OX=9615 GN=SVIL PE=3 SV=1                           | 0.59 | 0.60 | 15.70  | 75563.4 | 1 | 1 | 0 | 0.77 | 2215 | 2770  |
| >tr A0A5F4CIF3 A0A5F4CIF3_CANLF Calcium binding protein 2 OS=Canis lupus familiaris OX=9615 GN=CABP2 PE=4 SV=1            | 0.34 | 0.34 | 22.00  | 75349.7 | 1 | 1 | 0 | 9.82 | 163  | 11050 |
| >tr E2R9F0 E2R9F0_CANLF Tyrosine kinase non receptor 1 OS=Canis lupus familiaris OX=9615 GN=TNK1 PE=4 SV=3                | 0.82 | 0.82 | 28.50  | 73631.9 | 1 | 1 | 1 | 1.81 | 663  | 37868 |
| >tr A0A5F4C148 A0A5F4C148_CANLF Centromere protein J OS=Canis lupus familiaris OX=9615 GN=CENPJ PE=3 SV=1                 | 1.01 | 1.01 | 77.90  | 72116.8 | 1 | 1 | 0 | 0.78 | 1274 | 15824 |
| >tr A0A5F4D513 A0A5F4D513_CANLF Contactin 4 OS=Canis lupus familiaris OX=9615 GN=CNTN4 PE=4 SV=1                          | 0.13 | 0.13 | 25.20  | 71734.9 | 1 | 1 | 0 | 0.62 | 973  | 7826  |
| >tr F1P9Y3 F1P9Y3_CANLF Complex I-30kD OS=Canis lupus familiaris OX=9615 GN=NDUFS3 PE=3 SV=2                              | 0.15 | 0.15 | 23.80  | 62079.0 | 1 | 1 | 0 | 4.04 | 322  | 18622 |