

**Figure S1.** cDNA and genome structure of *slc24a5* in kawakawa, *Euthynnus affinis*.

SLC_cDNA	ATGGGGAATCTCTCTCTCTCTCTCTTTGCAGCTTGTTAGTTGTAGTGTAGTGTAGATGCA	60
SLC_genome	-----AATCTCTCTCTCTCTCTCTTTGCAGCTTGTTAGTTGTAGTGTAGTGTAGATGCA	54
	*****	
SLC_cDNA	GAGCTAACACACAGCTTCAAGCCACATTTTTTTTTTACCTTTGCATGCTTGCCTATGATTTC	120
SLC_genome	GAGCTAACACACAGCTTCAAGCCACATTTT--TTACCTTTGCATGCTTGCCTATGATTTC	111
	*****	
SLC_cDNA	CTTAGAATAATTCCTTCTCTCTCTTTTTTTTTTT--ACTCACCATGAATAAGGTTGCAGC	177
SLC_genome	CTTAGAATAATTCCTTCTCTCTCTTTTTTTTTTTTTTTTACTCACCATGAATAAGGTTGCAGC	171
	*****	
SLC_cDNA	TCTGCAGAAAAAGAAAAGAAAAGATTTTATTCCTTACTTCTGCGGATTTGTACTATTTTT	237
SLC_genome	TCTGCAGAAAAAGAAAAGAAAAGATTTTATTCCTTACTTCTGCGGATTTGTACTATTTTT	231
	*****	
SLC_cDNA	ATATTGCACGGTCCATCTTGTATCATTACAGCAAAAACAACTCAGGAAACCCACTCTGT	297
SLC_genome	ATATTGCACGGTCCATCTTGTATCATTACAGCAAAAACAACTCAGGAAACCCACTCTGT	291
	*****	
SLC_cDNA	CAGGGTGCGCCGGGCTCTTG-----	317
SLC_genome	CAGGGTGCGCCGGGCTCTTGTAAGAACATTTGTGTGTGTTTATGATAATAAAGTCTATT	351
	*****	
SLC_cDNA	-----	
SLC_genome	TTAAAGCATTTTTTTAAACCTCCTATTTTTCCTACAGAGTGTAAGTGTAATTGTATAACC	411
	-----	
SLC_cDNA	-----	
SLC_genome	TATTCAACGTGTAATTATACATGTCACGGCTCATTTTTGTGCTTTACAAAGTGTGGGTAA	471
	-----	
SLC_cDNA	-----	
SLC_genome	TCAATTGTGGCCAGCAACTGTGACAGTGTGCTCCACTAATTCTCGTGTCTTATTGGC	531
	-----	
SLC_cDNA	-----	
SLC_genome	ATGAAATTCCATGTAAGTCCATGTAAGAGTTTTGACAATGCAATAGGCGGGCTGCTTGT	591
	-----	
SLC_cDNA	-----	
SLC_genome	TTTTTTGGGGTGACAGGTGTTTGTGCTTGATGAGCACTGAACAATATGTGTGCTGCTG	651
	-----	
SLC_cDNA	-----AGAATGAGCCAGAATGCATCTTACCACAGTCCTCTGAGTTTCTGACGGCTTCT	711
SLC_genome	TTTCAGAGAATGAGTCAGAATGCATCTTACCACAGTCCTCTGAGTTTCTGACGGCTTCT	711
	*****	
SLC_cDNA	TCACGGTGCAGGAGAGAAAGGATGGAGGGCTTGTCATTTATTTTATGCTTATTTTCTACA	431
SLC_genome	TCACGGTGCAGGAGAGAAAGGATGGAGGGCTTGTCATTTATTTTATGCTTATTTTCTACA	771
	*****	
SLC_cDNA	TGCTTTTGGCTGTCGCAATAGCCTGCGATGATTACTTTCTGCCATCCTTAGAAGTGATCA	491
SLC_genome	TGCTTTTGGCTGTCGCAATAGTCTGCGATGATTACTTTCTGCCATCCTTAGAAGTGATCA	831
	*****	
SLC_cDNA	GTGATC-----	499
SLC_genome	GTGATCGTAAGTTACATGAATTGAATTATGGTGATGTTGTGTGTGTGTGTGTGTGT	891
	*****	

SLC_cDNA	-----	
SLC_genome	AAGGGATTGTGGGTAGGGTCAATGCATCATTACATAATCTGTAATGTAAATTGGCATTAT	951
SLC_cDNA	-----	
SLC_genome	AGGATTTAGCCTGTAACCTGCATTAAATCCTTCATAGTTTTCTAACAGCCTCCATGTATA	1011
SLC_cDNA	-----	
SLC_genome	TTCCATTATAACATTAGACTAGGTTGTAGCTGTTTTAATCAGGGATATGTTTTCAGAGTT	1071
SLC_cDNA	-----	
SLC_genome	ACTTTATGCTTTACAGTAGGCCTGCAACTAATGATTATTTCCAATATCAATTCATCTGCC	1131
SLC_cDNA	-----	
SLC_genome	GATTATATTATTGATTCATCTATGAATTATTTGGTGTATAAAATGTCAGAGAATTGTGAA	1191
SLC_cDNA	-----	
SLC_genome	AAAATGTCTATCATTTCTTTGAGTTCATGGTGACATCATGTATGACACAAAAGCTTCAA	1251
SLC_cDNA	-----	
SLC_genome	TCCTCACACTCAAGAAGCTGCAACCAGCAAATGTTTAGCTTTTATACTTAAAAAAAATG	1311
SLC_cDNA	-----	
SLC_genome	GTTAAAAATGATAAAATGAAAATAATAGACATAATCATCGCAGCTCTACAGATGCATTAGG	1371
SLC_cDNA	-----	
SLC_genome	CAGATAGACAGTAATAATATGTAGACAGACTGTGTGTATTTATAGTCTATAGGTATCATT	1431
SLC_cDNA	-----	
SLC_genome	TGCTATATTGTATCTATATGTAATTCTTGTAATAAATACTTTCACCAGGGTGTGGTGGGC	1491
SLC_cDNA	-----	
SLC_genome	TGTTTCTACCGTTCTGCTCTGTGTAGGTTTAGATGAGGATATGTGCAGGCTGCTTCTATC	1551
SLC_cDNA	-----	
SLC_genome	AGTAGCTACACTACATAAACTTGACTGATAAACTGACTGGGGGTGGATAAATACAGTATG	1611
SLC_cDNA	-----	
SLC_genome	ATGCAATCCCATACAATAGATAGACAAAGCTTGAATTATTTGTAGTTTGGTTTGTTTTG	1671
SLC_cDNA	-----	
SLC_genome	TGTTGGATTGTACAGTATAACATCAGGTGTGTTATCTTTGACTGTGTATATGTAGTCATG	1731
SLC_cDNA	-----GTCTGGGTCTGTCCCAAGATGTAGC	522
SLC_genome	TATTCTTTCTGGGTATGTTTGTGTCTCTCTCTCAGGCTCTGGGTCTGTCCCAAGATGTAGC	1791
	*****	
SLC_cDNA	AGGGGCAACATTTATGGCAGCTGGGAGTTCTGCACCTGAACTGGTCACAGCCTTTCTGG-	581
SLC_genome	AGGAGCAACATTTATGGCAGCTGGGAGTTCTGCACCTGAACTGGTCACAGCCTTTCTGGG	1851
	*** *****	

SLC_cDNA	-----	583
SLC_genome	TAATCACACATTAGTATAATAATTACAACCTACCAGTGTTTGATGATGACACCGCCATCAT	1911
SLC_cDNA	-----	
SLC_genome	CATCACTGTCACTGTCTCCTTACCCGACCAGATGAACTGTGACTTTAACGCCAGATGGGA	1971
SLC_cDNA	-----	
SLC_genome	ACAGAAAGACACTGTGGCCTGTGATTAGCACATATTTCTCTAGGCACCTTATGTGCTCC	2031
SLC_cDNA	-----	
SLC_genome	CCAGGCCTTTCTCATCCTCCTCATCGATGCTGCCACGTTGTCTCATTGCCTACTGTGCC	2091
SLC_cDNA	-----GTGTGTTTGTGAC	594
SLC_genome	ATGACGTGTGTCTGTGTGTTTTTTTTTTTATGTGTTTGGCACGACAGGTGTGTTGTAC	2151
	***** **	
SLC_cDNA	AAAGGGAGACATCGGGGTGAGCACCATTGTGGGGTCAGCAGTCTACAACCTCTTAGGAAT	654
SLC_genome	AAAGGGAGACATCGGGGTGAGCACCATTGTGGGGTCAGCAGTCTACAACCTCTTAGGAAT	2211
	*****	
SLC_cDNA	CTGCGCTGCATGTGGACTCTTGGCCTCTATG-----	685
SLC_genome	CTGCGCTGCATGTGGACTCTTGGCCTCTATGGTACATTATGACACACACACAGTATTCA	2271
	*****	
SLC_cDNA	-----	
SLC_genome	GACAAAGATCACACATCAACAACCTGTTTCATACAATAAAGAAGCACCTTTACTAGGTCA	2331
SLC_cDNA	-----	
SLC_genome	GAGCGGAAGCATCCTTGTTTACACCGTGTTTATGCGGTGTAAACATTTATTTTGT	2391
SLC_cDNA	-----GCAGGGCGTCTCACCTGTTGGCCTCTGTTTCAGGGACTGCCTGGCATATGCTAT	738
SLC_genome	CCTTCAGGCAGGGCGTCTCACCTGTTGGCCTCTGTTTCAGGGACTGCCTGGCATATGCTAT	2451
	*****	
SLC_cDNA	CAGCGTTGCTGCTGTTATTGCCATAATATCCGACAACAAGGTGTATTG-----	786
SLC_genome	CAGCGTTGCTGCTGTTATTGCCATAATATCCGACAACAAGGTGTATTGGTGAGTGTGGGC	2511
	*****	
SLC_cDNA	-----	
SLC_genome	AGTGATTGAGCATGACCTACCTGTAAAAGCGGTGTATACAGTTGTTTATTGTATCCTGT	2571
SLC_cDNA	-----	
SLC_genome	GACTATGGACAGCATAAATGTAAGAGCATAAAAATAGATCAGATGTAATGAAAGAACCGA	2631
SLC_cDNA	-----	
SLC_genome	GTGGCACAGTGCTGTGACTCATTGGCTTTTATTACACTGAAAGTACAATACAGTGGAATG	2691
SLC_cDNA	-----	
SLC_genome	ACACCATATCACATCATAACAAGCTAATCCAGTGTTTATGACATGTTGGCACATATATCT	2751
SLC_cDNA	-----	
SLC_genome	GAATAATTTGTTATGAATGTTTGTAGTTTATTAAGATCAAGATATGGAGTTTGTAAAA	2811

SLC_cDNA	-----	
SLC_genome	GCTAAACTAGATATTTAGCTTTAACATTAAAAAGTGATCAAATCAAATTGTAATAAAATG	2871
SLC_cDNA	-----	
SLC_genome	CAAACCAAGTGTTTGGCTTAACAAAAAATCATTTTGTCTGAATATATTCATTTGTAAAA	2931
SLC_cDNA	-----	
SLC_genome	AAAAAAAAAAAAAATCACCTTGTTAGACATGCAGCATTCCTTCAAAGTCATTCATAAATA	2991
SLC_cDNA	-----GTATGAAGCTGCCAGCCTGCTGCTGGTCTACAGTGTCTACATCG	830
SLC_genome	TACGTGTTGTTTACAGGTATGAAGCTGCCAGCCTGTTGCTGGTCTACAGTGTCTACATCG	3051
	*****	
SLC_cDNA	TGGTTCTGTGCTTTGACCTTCGCATCAGCGAGTTCGTCCTGAGGAAGCTGAGCCCGTGCT	890
SLC_genome	TGGTTCTGTGCTTTGACCTTCGCATCAGCGAGTTCGTCCTGAGGAAGCTGAGCCCGTGCT	3111
	*****	
SLC_cDNA	GCACCTGTCTGGGCAAAGGATCGGGGGAGAAGACCGAGACGCAGCCGCTGATGGGCTGGA	950
SLC_genome	GCACCTGTCTGGGCAAAGGATCGGGGGAGAAGACCGAGACGCAGCCGCTGATGGGCTGGA	3171
	*****	
SLC_cDNA	ACGACGACACGAGTCTGCGAGTCCACAGTCGCTCCAGGACGGACAGCGGGATCTTCCAAG	1010
SLC_genome	ACGACGACACGAGTCTGCGAGTCCACAGTCGCTCCAGGACGGACAGCGGGATCTTCCAAG	3231
	*****	
SLC_cDNA	ACGACTCGGGGTACTCTCACCTCTCTCTCAGCCTGCATGGTCTCAATGAGATACCTGAAG	1070
SLC_genome	ACGACTCGGGGTACTCTCATCTCTCTCTCAGCCTGCATGGTCTCAATGAGATACCTGAAG	3291
	*****	
SLC_cDNA	-----	
SLC_genome	GTGAGATGCAAACCTCGCAGAGACTATGACACTCAGTTTAGCACTCGCTTTTCAACATGAT	3351
SLC_cDNA	-----	
SLC_genome	GTGTACAGCTGTTGACACGCACTCGCTTGCTTTGGCCTTTATGACCCCTGACAATATGA	3411
SLC_cDNA	-----AGCGTAAAAGTGTTTGT	1088
SLC_genome	CAAGGACCCTACTCATAAACCGTTTGTCTCCTTGACCCAGAGCGTAAAAGTGTTTGT	3471
	*****	
SLC_cDNA	CTGTGCCGGAGAGCGACTTTAAAAGGATCCTCTGGGTCTGTCTCTACCCATCATCATTC	1148
SLC_genome	CTGTGCCGGAGAGCGACTTTAAAAGGATCCTCTGGGTCTGTCTCTACCCATCATCATTC	3531
	*****	
SLC_cDNA	TGTTCTTCTGACCATCCCTGACTGCAGAAGAAGTTCTGGAAGAAGTGGTTCATGATAA	1208
SLC_genome	TGTTCTTCTGACCATCCCTGACTGCAGAAGAAGTTCTGGAAGAAGTGGTTCATGATAA	3591
	*****	
SLC_cDNA	CCTTCTTCATGTCAGCTGTCTGGATCTCAGGTTTCACATATCTGCTGGTGTGGATGGTCA	1268
SLC_genome	CCTTCTTCATGTCAGCTGTCTGGATCTCAGGTTTCACATATCTGCTGGTGTGGATGGTCA	3651
	*****	
SLC_cDNA	CTATTGTCG-----	1277
SLC_genome	CTATTGTCGGTAAGCGCCGTATCTACGCATTGCGGTGATGAGCTTTGTTCAATCCATAT	3711
	*****	
SLC_cDNA	-----	

SLC_genome	ATTTCCTTTAAGTCTTTTGATGATATGATCAGCAGGTGTAAGTCAGCCTTGTCAACTCAAT	3771
SLC_cDNA	-----	
SLC_genome	GAGTTATGGAGCCTTTCTGGATCACAAGTGTGTTGAACTTGTGAGAAAAATGTGTGTGAT	3831
SLC_cDNA	-----	
SLC_genome	TCGCAGAGTAGAATCACATGTCGGTCTGCTGGCTAATTCCTGAGATGCCATTGTCCTGGA	3891
SLC_cDNA	-----	
SLC_genome	AAGTTAAGAGGGGGGTTATTGTAGCTCCAGTGGGCCATGTGCCTACCTAGCCACAGCAGG	3951
SLC_cDNA	-----	
SLC_genome	ATTACAGCCTGCTTCACCCCTTAAGGAAACACAGTCATGTGAGCCCTGGGTGTATATAC	4011
SLC_cDNA	-----	
SLC_genome	AGAAGTACCCAAAGGCACGGGTCCAAGAACAGTTTCACCCACCCCCCATCTACAACTT	4071
SLC_cDNA	-----	
SLC_genome	GAGATGTAAACTATAAAGCTGACTAAGATCAGGCTAAAAGGGCAGCTTCATCATGTGACA	4131
SLC_cDNA	-----	
SLC_genome	GTGGTAGGTCTACTGAAGTATAATGAGATTATTATTCCAAAGTCATAACATAGGCTCAGA	4191
SLC_cDNA	-----	
SLC_genome	TGGAGGGAGAGTTTAGTCTTATGAAAGAGCAGACGTGAGGTCAGGCAGATACAACGCAA	4251
SLC_cDNA	-----	
SLC_genome	CATACAGTATGCGATTGATTATGTTTTCCCTGTGGCTGTTCTGTTCTGCTCAGTGACATC	4311
SLC_cDNA	-----	
SLC_genome	TCAGTAACATCATACTGCATGATTTCAGACGTCTCACGAAAGTCTACAGGGAGGATGTGGA	4371
SLC_cDNA	-----	
SLC_genome	TTCATTTAAAGTGTTAAAACAGTGGGTAAATATCCAGGTGCTAGTTGAGCTTAAGACTGC	4431
SLC_cDNA	-----	
SLC_genome	GGGTGGGGCTCTGCTGGGTGAACGGGTCTTATTACGTCAATATTTCTAAAATCCCGACT	4491
SLC_cDNA	-----	
SLC_genome	AAAGCCCCGCTCTTGTGATCATTTGTTAACCTATCGCCACATTTAACATCATCAGCTG	4551
SLC_cDNA	-----	
SLC_genome	ATGACGATGTGGGAGGAGTCTGACTTTGGTTGGCGTTTGTTTACGCAGGTGAGACGCTC	4611
	***** ***	
SLC_cDNA	-----	
SLC_genome	-----GTGAGACACTC	1288
SLC_cDNA	GACATCCCCGATACGGTGATGGGACTCACTCTGATGGCTGCTGGAACCAGCATACCTGAC	1348
SLC_genome	GACATCCCCGATACGGTGATGGGACTCACTCTGATGGCTGCTGGAACCAGCATACCTGAC	4671
	*****	

SLC_cDNA	ACGGTAGCCAGTGTGATGGTGGCCAGAGAAG-----	1379
SLC_genome	ACGGTAGCCAGTGTGATGGTGGCCAGAGAAGGTAACATCAGTGTTCATGTTTATCAGCTAC *****	4731
SLC_cDNA	-----	
SLC_genome	AGTGTATAGTAGTTTGAGGTGCCTCATAACAAAAATATCTTTTACTTCACTACTATTA	4791
SLC_cDNA	-----	
SLC_genome	AGAAAATTCCTCTTTTATGAGCAACACTCCTGATTAATTCTCACAATTATATTCAAATCT	4851
SLC_cDNA	-----	
SLC_genome	GCCTAAAATGGTCATTTTTTAACCAGAGCTTTGATGTTGAGGTATTGGAGTCTTTCTACTT	4911
SLC_cDNA	-----	
SLC_genome	GTAACATATTAAAGTGATAACTATTGACTAATGATTAGTTTCTAACTCAGATTCCCAT	4971
SLC_cDNA	-----	
SLC_genome	CTGCCACTTTGAAAATGACTTTAATAGCCATATTCTGGGCATATGTAAATACTTTTCATT	5031
SLC_cDNA	-----GGAAAGCCGACATGGCGATGTCCAACATCGTGGGTTCAAATGTAT	1424
SLC_genome	TTCTCTGCTGAACAGGAAAAGCCGACATGGCGATGTCCAACATCGTGGGTTCAAATGTAT *****	5091
SLC_cDNA	TCGACATGCTCTGCCTCGGCCTGCCTTGGTTCATCAAGACCGCATTTGTGGACACCAACG	1484
SLC_genome	TCGACATGCTCTGCCTCGGCCTGCCTTGGTTCATCAAGACCGCATTCGTGGACACCAACG *****	5151
SLC_cDNA	ACCCCGTAGAGGTCACCAGCACCGGACTGTTCTTCATTTCTCCCACTCCTCCTTTCAA	1544
SLC_genome	ACCCCGTAGAGGTCACCAGCACCGGACTGTTCTTCATTTCTCCCACTCCTCCTTTCAA *****	5211
SLC_cDNA	TCCTCTTCCTTTTGTGCGCGTCCATGTGAACGGTTGGAAGTTGGACTGGAACTGGGAA	1604
SLC_genome	TCCTCTTCCTTTTGTGCGCGTCCATGTGAACGGTTGGAAGTTGGACTGGAACTGGGAA *****	5271
SLC_cDNA	TTGTTTCCCTCATCTGCTACATCCTCTGTGCCACTCTGTCCATCCTGTATGAGCTGGGGA	1664
SLC_genome	TTGTTTCCCTCATCTGCTACATCCTCTTGCCACTCTGTCCATCCTGTATGAGCTGGGGA *****	5331
SLC_cDNA	TTATTGGCAATAATCCCATAGACTGTGCAGTGACTGAACTTG-CCTTCCAGGACCAA	1723
SLC_genome	TTATTGGCAATAATCCCATAGACTGTGCAGTGACTGAACTTGACCTTCCAGGACCAA *****	5391
SLC_cDNA	AGCCATATTTACCCAAGACTCTTAATAACAGTCCAAAAACAAATAAAATGTTTTAA-G	1782
SLC_genome	AGCCATATTTACCCAAGACTCTTAATAACAGTCCAAAAACAAAGAAAAATGTTTTAAAG *****	5451
SLC_cDNA	CCTGTAAGATCTTCAAATATCAAAGACAAGGAAGCATGAGCCCACTCTAACACACATTT	1842
SLC_genome	CCTGTAAGATCTTCAAATATCAA-GACAAGGAAGCATGAGCCCACTCTAACACACATTT *****	5510
SLC_cDNA	AAAGATATTGTGTCACAGAAGACGTGCTGGTCACATCTCAGGAAGAGGATGATCTCTATA	1902
SLC_genome	AAAGATATTGTGTCACAGAAGACGTGCTGGTCACATCTCAGGAAGAGGATGATCTCTATA *****	5570
SLC_cDNA	ATAAAATGTATATTTACAAATAGGTGCAATGTGCCAAAGATCTTGATACTCTTGTGTAT	1962
SLC_genome	ATAAAATGTATATTTACAAATAGGTGCAATGTGCCAAAGATCTTGATACTCTTGTGTAT *****	5630

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SLC_cDNA      TCATATAAGCCTATGACCTGGATTGTTACACTATTAAAACACATTATCCATTAAATTTT 2022
SLC_genome    TCATATAAGCCTATGACCTGGATTGTTACACTATTAAAACGCATTATCCATTAAATTCT 5690
*****
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SLC_cDNA      AAGATGCCCTACTAAAGGCACATAAACAGAGAATGACAGGAATGAAGTAATAAAGGTGTC 2082
SLC_genome    AAGATGCCCTACTAAAGGCACATAAACAGAGAATGACAGGAATGAAGTAATAAAGGTGTC 5750
*****
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SLC_cDNA      CAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2108
SLC_genome    CA----- 5752
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ATG -start codon; TGA - stop codon

SLC: *slc24a5*