

Supplementary Table S1. Differential expression values for piRNAs at 1 hour and 2 hours.

piRNA id	Mean expression (Control)	Mean expression (1hr)	Mean expression (2hr)	log2Ratio (1hr)	Probability (q,1hr)	log2Ratio(2hr)	Probability(q,2hr)
novel_pir969	0.01	6.753333	10.54333	9.399456	0.947358	10.04212	0.966732
novel_pir535	0.01	1.143333	2.176667	6.837102	0.825203	7.765977	0.895956
hsa_piR_013624	0.213333	14.93	29.31	6.128961	0.876016	7.10214	0.954664
novel_pir1628	0.01	5.073333	11.48333	8.98679	0.935569	10.16533	0.968037
novel_pir1027	0.01	4.16	9.166667	8.70044	0.92378	9.840253	0.963307
novel_pir1391	0.01	5.29	9.89	9.047124	0.939024	9.949827	0.96559
novel_pir952	0.01	1.836667	3.643333	7.520946	0.871138	8.509115	0.927919
novel_pir976	0.01	18.07333	71.97	10.81965	0.975203	12.81318	0.996249
novel_pir1411	0.01	1.17	2.503333	6.870365	0.827439	7.967707	0.905414
novel_pir1028	0.01	7.403333	17.32667	9.532031	0.95122	10.75878	0.977821
novel_pir905	1.373333	0.01	0.01	-7.10154	0.841667	-7.10154	0.854044
novel_pir518	0.01	56.33333	116.66	12.45977	0.992276	13.51002	0.997554
novel_pir512	0.01	5.013333	8.58	8.969626	0.934756	9.744834	0.962166
novel_pir797	0.01	1.12	NA	6.807355	0.823374	NA	NA
novel_pir975	0.01	2.716667	3.863333	8.085694	0.900203	8.593702	0.93167
novel_pir996	0.01	1.553333	2	7.279224	0.854472	7.643856	0.890411
novel_pir984	0.383333	139.87	291.2533	8.511271	0.983333	9.569459	0.997717
novel_pir1686	0.01	1.006667	1.54	6.653442	0.809959	7.266787	0.863666
novel_pir1246	1.53	0.01	0.01	-7.25739	0.853252	-7.25739	0.863177
novel_pir960	0.01	6.246667	16.11333	9.286943	0.945325	10.65404	0.977006
novel_pir1117	0.01	2.12	3.073333	7.72792	0.88374	8.26366	0.919113
novel_pir1324	0.01	1.16	1.636667	6.857981	0.827033	7.354617	0.870841
novel_pir1627	0.01	23.90667	38.14333	11.2232	0.981098	11.89722	0.9894
novel_pir187	1.716667	0.01	0.01	-7.42347	0.864431	-7.42347	0.875408
novel_pir457	0.656667	40.60333	111.7633	5.950293	0.880488	7.41107	0.975701
novel_pir970	0.01	2.2	2.27	7.78136	0.885569	7.826548	0.89938
novel_pir1575	0.01	1.686667	3.846667	7.398031	0.862805	8.587465	0.931507
novel_pir998	0.01	1.736667	2.41	7.440177	0.865447	7.912889	0.9015
novel_pir935	0.01	1.69	2.906667	7.400879	0.862805	8.183222	0.916504
novel_pir1231	0.01	7.56	21.81667	9.562242	0.952642	11.09121	0.981572
novel_pir971	0.01	1.263333	3.12	6.981092	0.833537	8.285402	0.920091
novel_pir1703	0.01	12.55667	24.85667	10.29424	0.967276	11.27942	0.983692
novel_pir128	0.01	1.126667	NA	6.815917	0.825	NA	NA
novel_pir957	0.01	1.143333	1.58	6.837102	0.825203	7.303781	0.867091
novel_pir1259	0.01	1.716667	1.583333	7.423466	0.864431	7.306821	0.867091
hsa_piR_000753	0.313333	16.97667	NA	5.759711	0.831504	NA	NA

novel_pir772	1.816667	0.01	0.01	-7.50515	0.870325	-7.50515	0.880952
novel_pir981	0.15	9.193333	15.90667	5.937554	0.852642	6.728525	0.931507
novel_pir982	0.01	2.24	4.403333	7.807355	0.886789	8.782452	0.938193
novel_pir329	0.01	1.57	3.276667	7.294621	0.856504	8.356085	0.92319
novel_pir525	0.166667	36.23	59.76667	7.764075	0.965854	8.486232	0.985812
novel_pir1004	0.01	4.04	3.18	8.658211	0.922154	8.312883	0.920581
novel_pir972	0.01	1.936667	3.553333	7.597432	0.878049	8.473029	0.926778
novel_pir1122	0.01	3.216667	2.886667	8.329423	0.910163	8.173261	0.916014
novel_pir528	0.01	49.67333	132.62	12.27826	0.99126	13.69501	0.99788
novel_pir1229	0.01	31.00667	78.88667	11.59836	0.984756	12.94557	0.996902
novel_pir536	0.01	2.423333	3.113333	7.920849	0.89187	8.282316	0.920091
novel_pir449	0.01	0.953333	2.656667	6.574909	0.802846	8.053473	0.909654
novel_pir983	0.143333	20.37333	28.28	7.151164	0.943496	7.624264	0.968363
novel_pir1023	0.01	7.116667	3.973333	9.475058	0.949797	8.634206	0.932648
novel_pir1003	0.01	0.95	1.303333	6.569856	0.802846	7.026062	0.847358
novel_pir459	0.493333	24.02333	57.13	5.60573	0.814431	6.855542	0.954664
novel_pir1102	0.01	1.093333	NA	6.77259	0.822154	NA	NA
novel_pir1685	0.01	1.54	2.776667	7.266787	0.853659	8.11721	0.912427
novel_pir527	0.01	1.15	5.273333	6.84549	0.826626	9.042571	0.947652
novel_pir607	0.01	1.186667	1.413333	6.890771	0.828659	7.142958	0.856001
novel_pir256	0.01	1.403333	NA	7.132714	0.843902	NA	NA
novel_pir519	0.01	1.383333	2.31	7.112005	0.842683	7.851749	0.900359
hsa_piR_018573	0.2	20.57333	32.24333	6.684632	0.926829	7.332857	0.963796
novel_pir1601	0.01	1.163333	1.82	6.862121	0.827033	7.507795	0.880952
novel_pir580	0.01	6.23	20.42	9.283088	0.945325	10.99577	0.980431
novel_pir1233	0.01	0.99	1.326667	6.629357	0.80874	7.051662	0.85013
novel_pir955	0.156667	11.11	24.62	6.148017	0.872967	7.295989	0.95923
novel_pir857	0.01	5.343333	4.243333	9.061596	0.939228	8.729054	0.936399
novel_pir1002	0.01	1.8	3.23	7.491853	0.869715	8.33539	0.921559
novel_pir1118	0.01	4.626667	4.306667	8.853829	0.931098	8.750428	0.937704
novel_pir1264	0.143333	8.36	12.24667	5.866057	0.837602	6.416871	0.90835
novel_pir111	1.386667	0.01	0.01	-7.11548	0.843293	-7.11548	0.854697
novel_pir965	0.01	4.533333	6.253333	8.824428	0.928659	9.288482	0.952544
novel_pir1315	0.01	1.703333	2.673333	7.412217	0.864024	8.062496	0.909817
novel_pir1136	0.973333	0.01	0.01	-6.60486	0.804675	-6.60486	0.809035
novel_pir1618	1.573333	0.01	0.01	-7.29768	0.856504	-7.29768	0.866601
novel_pir1103	0.01	3.076667	2.06	8.265224	0.907724	7.686501	0.89302
novel_pir999	0.01	3.206667	2.943333	8.324931	0.909756	8.201307	0.91683
novel_pir979	0.01	11.85333	17.63667	10.21108	0.966463	10.78436	0.978147
novel_pir61	1.273333	0.01	0.01	-6.99247	0.83435	-6.99247	0.845401
novel_pir647	0.01	3.726667	5.906667	8.541742	0.91687	9.2062	0.95075
novel_pir1328	0.01	0.943333	3.436667	6.559696	0.801016	8.424866	0.925799

novel_pir980	0.01	14.12	17.43333	10.46352	0.969309	10.76763	0.978147
novel_pir1381	2.343333	0.01	0.01	-7.87242	0.89065	-7.87242	0.900685
novel_pir1600	0.01	5.903333	8.6	9.205386	0.942886	9.748193	0.962166
novel_pir856	0.01	38.33667	24.24333	11.90451	0.988415	11.24337	0.982877
novel_pir1001	0.01	1.183333	2.25	6.886713	0.827846	7.813781	0.898728
novel_pir538	0.01	2.44	4.616667	7.930737	0.89248	8.850708	0.941455
novel_pir1021	0.01	5.96	10.04333	9.219169	0.943293	9.972022	0.96559
novel_pir504	0.15	30.69667	53.26333	7.676976	0.962195	8.472036	0.984181
novel_pir1137	16.28333	0.01	0.203333	-10.6692	0.971951	-6.32341	0.905251
novel_pir956	0.01	1.966667	2.766667	7.619609	0.879472	8.112005	0.912264
novel_pir133	0.01	1.136667	NA	6.828665	0.825203	NA	NA
novel_pir674	3.386667	0.01	NA	-8.40372	0.913618	NA	NA
novel_pir978	0.01	12.64333	17.88	10.30416	0.967276	10.80413	0.978147
novel_pir1312	0.01	1.72	2.17	7.426265	0.864431	7.761551	0.895629
novel_pir967	0.343333	50.04333	83.84	7.187424	0.956911	7.931885	0.982224
novel_pir542	0.01	2.106667	4.486667	7.718818	0.883537	8.8095	0.939335
novel_pir655	0.01	1.053333	3.543333	6.718818	0.81565	8.468963	0.926451
novel_pir1000	0.01	3.103333	2.933333	8.277675	0.908333	8.196397	0.916667
novel_pir1238	1.26	0.01	0.01	-6.97728	0.833537	-6.97728	0.844097
novel_pir1100	0.01	0.94	NA	6.554589	0.801016	NA	NA
novel_pir1115	0.01	5.093333	9.103333	8.992466	0.935569	9.830251	0.963307
novel_pir529	0.25	52.12	87.64333	7.703765	0.969106	8.453572	0.987932
novel_pir1650	1.443333	0.01	0.01	-7.17326	0.847764	-7.17326	0.858284
novel_pir855	0.01	11.09333	10.66333	10.11548	0.964837	10.05844	0.967058
novel_pir904	5.14	0.01	NA	-9.00562	0.936585	NA	NA
novel_pir1713	0.01	1.146667	3.136667	6.841302	0.825813	8.293088	0.920254
novel_pir110	1.743333	0.01	0.01	-7.4457	0.865447	-7.4457	0.877365
novel_pir941	0.01	1.233333	1.696667	6.946419	0.831707	7.406559	0.875082
novel_pir507	0.01	16.47333	22.97	10.68592	0.972358	11.16554	0.982061
novel_pir248	0.01	15.50333	31.36667	10.59836	0.971545	11.61502	0.987443
novel_pir1121	0.01	2.726667	2.966667	8.090995	0.900407	8.212699	0.917971
novel_pir168	0.01	2.316667	4.626667	7.855907	0.889837	8.853829	0.941781
novel_pir1590	1.443333	0.01	0.01	-7.17326	0.847764	-7.17326	0.858284
novel_pir463	0.01	1.683333	5.766667	7.395177	0.862398	9.171594	0.950098
novel_pir523	0.01	1.61	6.81	7.330917	0.859959	9.411511	0.954827
novel_pir573	0.01	1.556667	5.703333	7.282316	0.855285	9.155662	0.949772
novel_pir977	0.466667	37.62333	57.86667	6.333091	0.914024	6.954196	0.958252
novel_pir46	0.96	0.01	0.01	-6.58496	0.804472	-6.58496	0.808545
novel_pir669	2.343333	0.01	NA	-7.87242	0.89065	NA	NA
novel_pir587	0.01	7.393333	23.23333	9.530081	0.951016	11.18198	0.982061
novel_pir1114	0.01	2.866667	10.07333	8.16323	0.903659	9.976325	0.965753
novel_pir1462	0.01	2.933333	1.373333	8.196397	0.904472	7.101538	0.854044

novel_pir1501	0.01	2.203333	NA	7.783544	0.885569	NA	NA
novel_pir1011	0.01	1.796667	1.476667	7.489179	0.869715	7.2062	0.860894
hsa_piR_004150	19.68333	NA	1084.94	NA	NA	5.784497	0.866112
hsa_piR_020490	0.183333	NA	13.82667	NA	NA	6.23684	0.896608
hsa_piR_020548	0.57	NA	29.09667	NA	NA	5.673748	0.838715
novel_pir1010	0.01	NA	1.35	NA	NA	7.076816	0.85225
novel_pir1012	0.01	NA	1.746667	NA	NA	7.448461	0.878343
novel_pir1013	0.01	NA	0.986667	NA	NA	6.624491	0.813112
novel_pir1018	0.01	NA	1.02	NA	NA	6.672425	0.815721
novel_pir1019	0.01	NA	1.18	NA	NA	6.882643	0.835943
novel_pir1026	0.01	NA	1.276667	NA	NA	6.996238	0.846543
novel_pir109	3.083333	NA	0.01	NA	NA	-8.26835	0.919602
novel_pir1119	0.01	NA	0.906667	NA	NA	6.5025	0.800228
novel_pir1120	0.01	NA	1.086667	NA	NA	6.763766	0.825016
novel_pir1125	0.01	NA	1.313333	NA	NA	7.037089	0.847521
novel_pir1130	0.01	NA	1.38	NA	NA	7.108524	0.854371
novel_pir1149	0.01	NA	0.926667	NA	NA	6.533979	0.802022
novel_pir1201	0.01	NA	1.133333	NA	NA	6.824428	0.831213
novel_pir1207	0.01	NA	1.193333	NA	NA	6.898853	0.836432
novel_pir1244	0.01	NA	1.253333	NA	NA	6.969626	0.843607
novel_pir1249	0.01	NA	1.893333	NA	NA	7.564785	0.884214
novel_pir1257	0.01	NA	1.88	NA	NA	7.554589	0.883725
novel_pir1267	0.01	NA	1.366667	NA	NA	7.094518	0.852903
novel_pir1302	0.01	NA	2.14	NA	NA	7.741467	0.894814
novel_pir1334	0.01	NA	1.596667	NA	NA	7.318919	0.868395
novel_pir1338	0.01	NA	1.966667	NA	NA	7.619609	0.888943
novel_pir1394	0.01	NA	1.59	NA	NA	7.312883	0.867254
novel_pir1395	0.01	NA	1.726667	NA	NA	7.431846	0.877038
novel_pir1398	0.01	NA	0.906667	NA	NA	6.5025	0.800228
novel_pir1413	0.01	NA	1.093333	NA	NA	6.77259	0.825016
novel_pir1415	0.01	NA	1.106667	NA	NA	6.790077	0.827462
novel_pir1418	0.01	NA	1.83	NA	NA	7.5157	0.880952
novel_pir1419	0.01	NA	2.123333	NA	NA	7.730187	0.894325
novel_pir1429	0.01	NA	1.9	NA	NA	7.569856	0.885356
novel_pir1437	0.01	NA	1.16	NA	NA	6.857981	0.833496
novel_pir145	2.87	NA	0.01	NA	NA	-8.16491	0.915851
novel_pir1504	0.01	NA	1.193333	NA	NA	6.898853	0.836432
novel_pir158	2.953333	NA	0.01	NA	NA	-8.2062	0.917156
novel_pir1635	0.01	NA	1.216667	NA	NA	6.92679	0.839693
novel_pir167	0.01	NA	1.573333	NA	NA	7.297681	0.866601
novel_pir1677	0.01	NA	2.056667	NA	NA	7.684164	0.89302
novel_pir1694	0.01	NA	2.293333	NA	NA	7.841302	0.899543

novel_pir1695	0.01	NA	1.123333	NA	NA	6.811642	0.828115
novel_pir1698	0.01	NA	1.503333	NA	NA	7.232021	0.862035
novel_pir1707	0.01	NA	0.946667	NA	NA	6.564785	0.80773
novel_pir1715	0.01	NA	1.006667	NA	NA	6.653442	0.814416
novel_pir223	0.01	NA	1.446667	NA	NA	7.176589	0.858937
novel_pir281	0.01	NA	1.503333	NA	NA	7.232021	0.862035
novel_pir296	0.01	NA	1.77	NA	NA	7.467606	0.879159
novel_pir324	0.01	NA	1.533333	NA	NA	7.260528	0.863177
novel_pir331	0.01	NA	1.53	NA	NA	7.257388	0.863177
novel_pir386	0.01	NA	1.933333	NA	NA	7.594947	0.887476
novel_pir399	0.01	NA	1.51	NA	NA	7.238405	0.862198
novel_pir415	0.01	NA	1.536667	NA	NA	7.26366	0.86334
novel_pir435	0.01	NA	1.11	NA	NA	6.794416	0.827462
novel_pir436	0.01	NA	1.016667	NA	NA	6.667703	0.815721
novel_pir443	0.01	NA	1.023333	NA	NA	6.677132	0.815721
novel_pir450	0.01	NA	1.683333	NA	NA	7.395177	0.874755
novel_pir464	0.01	NA	1.1	NA	NA	6.78136	0.826158
novel_pir465	0.01	NA	1.033333	NA	NA	6.691162	0.818004
novel_pir471	0.01	NA	1.19	NA	NA	6.894818	0.836432
novel_pir472	0.683333	NA	43.36	NA	NA	5.987631	0.882909
novel_pir479	0.01	NA	1.03	NA	NA	6.686501	0.818004
novel_pir505	0.01	NA	1.006667	NA	NA	6.653442	0.814416
novel_pir506	0.01	NA	1.15	NA	NA	6.84549	0.832518
novel_pir508	0.01	NA	2.946667	NA	NA	8.20294	0.917156
novel_pir51	0.01	NA	1.15	NA	NA	6.84549	0.832518
novel_pir511	0.01	NA	1.306667	NA	NA	7.029747	0.847521
novel_pir515	0.01	NA	1.593333	NA	NA	7.315904	0.867254
novel_pir516	0.01	NA	2	NA	NA	7.643856	0.890411
novel_pir522	0.01	NA	1.746667	NA	NA	7.448461	0.878343
novel_pir533	0.01	NA	2.056667	NA	NA	7.684164	0.89302
novel_pir564	0.01	NA	3.183333	NA	NA	8.314394	0.920581
novel_pir566	0.693333	NA	35.49333	NA	NA	5.677855	0.84165
novel_pir571	0.01	NA	1.073333	NA	NA	6.745954	0.82257
novel_pir581	0.01	NA	1.106667	NA	NA	6.790077	0.827462
novel_pir583	0.01	NA	1.02	NA	NA	6.672425	0.815721
novel_pir590	0.01	NA	2.013333	NA	NA	7.653442	0.891226
novel_pir599	0.01	NA	1.09	NA	NA	6.768184	0.825016
novel_pir656	0.01	NA	1.26	NA	NA	6.97728	0.844097
novel_pir706	0.01	NA	1.15	NA	NA	6.84549	0.832518
novel_pir719	0.01	NA	2.05	NA	NA	7.67948	0.892694
novel_pir722	0.01	NA	0.936667	NA	NA	6.549464	0.807078
novel_pir731	0.01	NA	1.076667	NA	NA	6.750428	0.824364

novel_pir733	0.01	NA	1.643333	NA	NA	7.360481	0.870841
novel_pir788	0.01	NA	0.986667	NA	NA	6.624491	0.813112
novel_pir792	0.01	NA	1.793333	NA	NA	7.4865	0.879485
novel_pir804	0.01	NA	0.986667	NA	NA	6.624491	0.813112
novel_pir808	0.01	NA	1.273333	NA	NA	6.992466	0.845401
novel_pir822	0.01	NA	1.293333	NA	NA	7.01495	0.847032
novel_pir858	0.01	NA	1.516667	NA	NA	7.24476	0.862524
novel_pir924	0.01	NA	1.07	NA	NA	6.741467	0.82257
novel_pir950	0.01	NA	1.023333	NA	NA	6.677132	0.815721
novel_pir951	0.01	NA	2.49	NA	NA	7.960002	0.904436
novel_pir963	0.01	NA	1.936667	NA	NA	7.597432	0.887476
novel_pir973	0.823333	NA	48.02	NA	NA	5.866015	0.870189
novel_pir974	0.253333	NA	21.40667	NA	NA	6.400879	0.918461

Supplementary Table S2. Sequences of differentially expressed known and novel piRNA.

piRNA id	Sequence
hsa_piR_000753	CCACCCTGAACGCGCCCGAT
hsa_piR_013624	TGGAATGCAGCCCAAAGCGGGTGGTA
hsa_piR_018573	TTGGTGTATGTGCTTGGCTGAGGAGCC
hsa_piR_004150	TCCCTGGTAGTCTAGTGGTTAGGATTC
hsa_piR_020490	GGGGCGAAGCTACCATCTGTGGGATT
hsa_piR_020548	GGTCAGTCGGTCCTGAGAGATGGGCGAGC
novel_pir46	TTTCTCGCTGGGGCCTCCA
novel_pir51	ACTCAATTTCTGGTCTCC
novel_pir61	AATCCGAGTCACGGCACCA
novel_pir109	CTCCTGGCTGGCTCGCCA
novel_pir110	TCCTCCTGGCTGGCTCGCCA
novel_pir111	CCTCCTGGCTGGCTCGCCA
novel_pir128	GTGGTCTAGTGGCTAGGA
novel_pir624 3	GGTGGTCTAGTGGCTAGG
novel_pir145	CGGATCCCCTTCTGACACCA
novel_pir158	AATCCCCTTCTGACACCA
novel_pir167	CACTGACCCGGTGAGGCGGGGGG
novel_pir168	ACTGACCCGGTGAGGCGGGGGG
novel_pir187	GAATCCCCTTCTGACACCA
novel_pir223	CTACGGCCATAACCACCTG
novel_pir248	TTGGGTTTTAAGCAGGAGG
novel_pir256	AGTGGTTAAGGCAATGGA
novel_pir281	AATGCTGCTGGAGTAATGG
novel_pir296	AAAACCTCCCGTGCTGATC
novel_pir324	GCCTAAGGAGGGGTGAACCGGCC
novel_pir329	GCCTAAGGAGGGGTGAACCGGCC
novel_pir331	CCTAAGGAGGGGTGAACCGGCC
novel_pir386	CACTAAGTTCGGCATCAATATGGTGACCTCC
novel_pir399	CACTAAGTTCGGCATCAATATGGTG
novel_pir415	CCGATCGGGTGTCCGCACTAAGTTCGGCATCA
novel_pir435	ATCGGGTGTCCGCACTAAGTTCGGC
novel_pir436	CCGATCGGGTGTCCGCACTAAGTTCGG
novel_pir443	GGTGTCCGCACTAAGTTCGG
novel_pir449	TGCCGATCGGGTGTCCGCACTAAGTTC
novel_pir450	TGCCGATCGGGTGTCCGCACTAAGTT
novel_pir457	TGCCGATCGGGTGTCCGCACTA
novel_pir459	TGCCGATCGGGTGTCCGCACT
novel_pir463	TGCCGATCGGGTGTCCGCAC
novel_pir464	TGCCGATCGGGTGTCCGCA
novel_pir465	CGCTATGCCGATCGGGTGTCCGCA
novel_pir471	TGCGCTATGCCGATCGGGTGTCCG
novel_pir472	CGCTATGCCGATCGGGTGTCCG
novel_pir479	CGCTATGCCGATCGGGTGTCC

novel_pir504	AGTTCTGGGCTGTAGTGCGCTATG
novel_pir505	CTGGGCTGTAGTGCGCTATG
novel_pir506	GTTCTGGGCTGTAGTGCGCTATG
novel_pir507	GAGTTCTGGGCTGTAGTGCGCTATG
novel_pir508	TCTGGGCTGTAGTGCGCTATG
novel_pir511	TCTGGGCTGTAGTGCGCTAT
novel_pir512	AGTTCTGGGCTGTAGTGCGCTAT
novel_pir515	GTTCTGGGCTGTAGTGCGCTAT
novel_pir516	TTCTGGGCTGTAGTGCGCTAT
novel_pir518	AGTTCTGGGCTGTAGTGCGCTA
novel_pir519	GGAGTTCTGGGCTGTAGTGCGCTA
novel_pir522	AGGAGTTCTGGGCTGTAGTGCGCTA
novel_pir523	GTTCTGGGCTGTAGTGCGCTA
novel_pir525	GAGTTCTGGGCTGTAGTGCGCTA
novel_pir527	GTTCTGGGCTGTAGTGCGCT
novel_pir528	AGTTCTGGGCTGTAGTGCGCT
novel_pir529	GAGTTCTGGGCTGTAGTGCGCT
novel_pir533	AGTTCTGGGCTGTAGTGCGC
novel_pir535	GAGTTCTGGGCTGTAGTGCGC
novel_pir536	AGTTCTGGGCTGTAGTGCG
novel_pir538	GAGTTCTGGGCTGTAGTGCG
novel_pir542	AGGAGTTCTGGGCTGTAGTG
novel_pir564	GTGGGAGGATCGCTTGAGCCCAGG
novel_pir566	AGGTGGGAGGATCGCTTGAGCCCAGG
novel_pir571	GGTGGGAGGATCGCTTGAGCCCAGG
novel_pir573	AGGTGGGAGGATCGCTTGAGCCCAG
novel_pir580	AGGTGGGAGGATCGCTTGAGCCCA
novel_pir581	GTGGGAGGATCGCTTGAGCCCA
novel_pir583	TGGGAGGATCGCTTGAGCCCA
novel_pir587	AGGTGGGAGGATCGCTTGAGCCC
novel_pir590	AGGTGGGAGGATCGCTTGAGCC
novel_pir599	GGCTGAGGTGGGAGGATCGCTTG
novel_pir607	GGCTGAGGTGGGAGGATCG
novel_pir647	GGTTTTAAGCAGGAGGTG
novel_pir655	ATTGGAGGGCAAGTCTGGTG
novel_pir656	TTGGAGGGCAAGTCTGGTG
novel_pir669	CTGCTTCACTTGACTAGCCTTA
novel_pir674	TGCTTCACTTGACTAGCCTTA
novel_pir706	CTTGATCCTGAAGCAGCT
novel_pir719	CCATACCACCCTGAACGCG
novel_pir722	CCATACCACCCTGAACGCGCCCGATC
novel_pir731	CATACCACCCTGAACGCGCCCGAT
novel_pir733	CATACCACCCTGAACGCGCCCGATC
novel_pir772	TCCCGGGTTTCGGCACCA
novel_pir788	CAGGGGTAGAGCACTGGT
novel_pir792	AAGGTGAGATTTTGGGCA

novel_pir797	AGTCAGAGGAGAAGGAGG
novel_pir804	CTTGATCACTGTGAAAAAT
novel_pir808	TCTTGGTTTTTGTCTTCTT
novel_pir822	TATCTTGCTTTATTTTCTTCA
novel_pir855	GTTTGTGTGTTGTTGGCAG
novel_pir856	TTTGTGTGTTGTTGGCAG
novel_pir857	GTTTGTGTGTTGTTGGCA
novel_pir858	CAGAAGACTTATTGCTGTTGT
novel_pir904	TTCTCCTGGCTGGCTCGCCA
novel_pir905	TCTCCTGGCTGGCTCGCCA
novel_pir924	TGATTTCTGCCCAGTGCT
novel_pir935	AGACATTTGGTGTATGTGCTTGGCTG
novel_pir941	GACATTTGGTGTATGTGCTTGGCT
novel_pir950	CATTGGTGTATGTGCTTG
novel_pir951	CATTGGTGTATGTGCTTGGCT
novel_pir952	CATTGGTGTATGTGCTTGGC
novel_pir955	ATTTGGTGTATGTGCTTGGCTG
novel_pir956	ATTTGGTGTATGTGCTTGGCTGAGGA
novel_pir957	ATTTGGTGTATGTGCTTGGCTGAGGAG
novel_pir960	ATTTGGTGTATGTGCTTG
novel_pir963	ATTTGGTGTATGTGCTTGGCTGA
novel_pir965	TTTGGTGTATGTGCTTGGCTGAG
novel_pir967	TTTGGTGTATGTGCTTGGCTG
novel_pir969	TTTGGTGTATGTGCTTGG
novel_pir970	TTTGGTGTATGTGCTTGGCTGAGGAG
novel_pir971	TTTGGTGTATGTGCTTGGCTGAGGAGCCA
novel_pir972	TTTGGTGTATGTGCTTGGCTGA
novel_pir973	TTTGGTGTATGTGCTTGGC
novel_pir974	TTTGGTGTATGTGCTTGGCT
novel_pir975	TTTGGTGTATGTGCTTGGCTGAGGA
novel_pir976	TTGGTGTATGTGCTTGGCT
novel_pir977	TTGGTGTATGTGCTTGGC
novel_pir978	TTGGTGTATGTGCTTGGCTGAGG
novel_pir979	TTGGTGTATGTGCTTGGCTGAGGA
novel_pir980	TTGGTGTATGTGCTTGGCTGAGGAG
novel_pir981	TTGGTGTATGTGCTTGGCTGA
novel_pir982	TTGGTGTATGTGCTTGGCTGAGGAGCCAA
novel_pir983	TTGGTGTATGTGCTTGGCTGAG
novel_pir984	TTGGTGTATGTGCTTGGCTG
novel_pir996	GGTGTATGTGCTTGGCTG
novel_pir998	GTGTATGTGCTTGGCTGAGGAGCCA
novel_pir999	GTGTATGTGCTTGGCTGAGGAG
novel_pir1000	GTGTATGTGCTTGGCTGAGG
novel_pir1001	GTGTATGTGCTTGGCTGAGGAGCC
novel_pir1002	GTGTATGTGCTTGGCTGAG
novel_pir1003	GTGTATGTGCTTGGCTGA

novel_pir1004	GTGTATGTGCTTGGCTGAGGA
novel_pir1010	TGTATGTGCTTGGCTGAGGAG
novel_pir1011	TGTATGTGCTTGGCTGAGGA
novel_pir1012	TGTATGTGCTTGGCTGAGGAGCC
novel_pir1013	GTATGTGCTTGGCTGAGGAGCC
novel_pir1018	GTATGTGCTTGGCTGAGGAGCCA
novel_pir1019	TATGTGCTTGGCTGAGGAGC
novel_pir1021	TATGTGCTTGGCTGAGGAG
novel_pir1023	TATGTGCTTGGCTGAGGA
novel_pir1026	TATGTGCTTGGCTGAGGAGCCAA
novel_pir1027	TATGTGCTTGGCTGAGGAGCC
novel_pir1028	TATGTGCTTGGCTGAGGAGCCA
novel_pir1100	AATGTGGCGTACGGAAGAC
novel_pir1102	ATGTGGCGTACGGAAGAC
novel_pir1103	ATGTGGCGTACGGAAGACC
novel_pir1114	CCCAAGTCCTTCTGATCGAG
novel_pir1115	CCCAAGTCCTTCTGATCGAGG
novel_pir1117	CCAAGTCCTTCTGATCGAGG
novel_pir1118	CAAGTCCTTCTGATCGAGG
novel_pir1119	CAAGTCCTTCTGATCGAG
novel_pir1120	AAGTCCTTCTGATCGAGG
novel_pir1121	GGAAATGTGGCGTACGGAA
novel_pir1122	GGAAATGTGGCGTACGGA
novel_pir1125	AAAAAAAGAAGTCAGAGG
novel_pir1130	CTAGGTGGTAGATATGGT
novel_pir1136	TTCCCCGTA CTGGCCACCA
novel_pir1137	GTTCCCCGTA CTGGCCACCA
novel_pir1149	AGCAGGGTCGGGCCTGGTT
novel_pir1201	TCAGTAGTTAGTTTATTTACA
novel_pir1207	TTTGAAAAGTAGCTTTGG
novel_pir1229	TTGGGTTTTAAGCAGGAGGTG
novel_pir1231	TTGGGTTTTAAGCAGGAGGT
novel_pir1233	TGGGTTTTAAGCAGGAGGTG
novel_pir1238	ATCCCTTCGTGGTTGCCA
novel_pir1244	AATGGTTGAAAAGTTCA
novel_pir1246	CATCCCACTTCTGACACCA
novel_pir1249	TGTGTCCTCTGCTGTTTCT
novel_pir1257	GCCTGGATAGCTCAGTCGGTAGAGCA
novel_pir1259	GCCTGGATAGCTCAGTCGGTAGAGC
novel_pir1264	GATAGCTCAGTCGGTAGAG
novel_pir1267	ATAGCTCAGTCGGTAGAG
novel_pir1302	TGTAATGGTTAGCACTCTGG
novel_pir1312	ATGGTTAGCACTCTGGACTCT
novel_pir1315	ATGGTTAGCACTCTGGACTCTG
novel_pir1324	TTTGTAGTTGATTGAATCT
novel_pir1328	TACTTGTTGGATTGTTGA

novel_pir1334	TCTGTTATTGATCTTGGCA
novel_pir1338	TCAGGTTTCAGGAGCAGGT
novel_pir1381	GTATCCCACCTTCTGACACCA
novel_pir1391	AACCAAGAGAGTAGCACT
novel_pir1394	TCTTTGTTCTTGTGTTGCT
novel_pir1395	TGGTGTTAGAATGTTTCATT
novel_pir1398	GTGGTATAGTGGTGAGCATA
novel_pir1411	CTCTCTCTCTCTCTCCCCCGCT
novel_pir1413	GATGGGGAGTTTGGCTGGGGC
novel_pir1415	TGGGGAGTTTGGCTGGGG
novel_pir1418	TAATCTTTTGCTGCTCTTTT
novel_pir1419	TAATCTTTTGCTGCTCTTT
novel_pir1429	ACTTGGTCTCTTGTGTTGT
novel_pir1437	TTCATCTTGGATTATCTGG
novel_pir1462	AAGGGAACGGACTTGAAG
novel_pir1501	GTGGTCTAGTGGTTAGGA
novel_pir1504	TCTTTTGTGGTTGTTGTG
novel_pir1575	ACTGAAGATCTAAAGGTCCCTG
novel_pir1590	GATCCCACCTCCTGACACCA
novel_pir1600	GATTCCGTGGGTGGTGGTG
novel_pir1601	ATTCCGTGGGTGGTGGTG
novel_pir1618	TATCTCGCTGGGGCCTCCA
novel_pir1627	TTACAAAGGAACAGTTGGC
novel_pir1628	TTACAAAGGAACAGTTGG
novel_pir1635	CCTATTCAGTATGGTTGT
novel_pir1650	CAATCCCGGACGAGCCCCCA
novel_pir1677	ATGTTGTTCTACTTTTTGT
novel_pir1685	GTACGTAGCAGAGCAGCTCCCTCGCTG
novel_pir1686	GTACGTAGCAGAGCAGCTCCCTCGCT
novel_pir1694	ACGTAGCAGAGCAGCTCCCTCGCTG
novel_pir1695	CGTAGCAGAGCAGCTCCCTCGCTG
novel_pir1698	CGTAGCAGAGCAGCTCCCTCGCT
novel_pir1703	ATCTATTGAAAGTCAGCCCT
novel_pir1707	TCTATTGAAAGTCAGCCCT
novel_pir1713	ATGATGTGTTGTTGCCAT
novel_pir1715	CATGCCTCAGAATCACTG