Position	Reference	Alternative	Frequence	Variant_class	Gene	Gene_class	AA_variant	Polarity_change
98	Α	С	0.003845	missense_variant	polh	Non-core gene	p.Lys33Thr	+
273	С	Т	0.103167	synonymous_variant	polh	Non-core gene	p.Ser91Ser	-
474	G	Α	0.024921	synonymous_variant	polh	Non-core gene	p.Glu158Glu	-
543	Т	С	0.104833	synonymous_variant	polh	Non-core gene	p.Val181Val	-
1025	С	Т	0.100709	synonymous_variant	orf1629	Non-core gene	p.Leu390Leu	-
1309	Т	С	0.104958	missense_variant	orf1629	Non-core gene	p.lle296Val	-
1391	G	С	0.010092	synonymous_variant	orf1629	Non-core gene	p.Pro268Pro	-
1391	G	Т	0.023878	synonymous_variant	orf1629	Non-core gene	p.Pro268Pro	-
1418	G	Α	0.262583	synonymous_variant	orf1629	Non-core gene	p.Ala259Ala	-
1430	G	Α	0.262602	synonymous_variant	orf1629	Non-core gene	p.Ser255Ser	-
1528	G	Α	0.298123	synonymous_variant	orf1629	Non-core gene	p.Leu223Leu	-
1724	С	Т	0.308133	synonymous_variant	orf1629	Non-core gene	p.Thr157Thr	-
2212	С	Α	0.008445	missense_variant	pk-1	Non-core gene	p.Thr7Asn	-
2227	Т	Α	0.002946	missense_variant	pk-1	Non-core gene	p.Met12Lys	+
2459	G	Α	0.248541	synonymous_variant	pk-1	Non-core gene	p.Thr89Thr	-
2582		С		missense_variant	pk-1	Non-core gene	p.Glu130Asp	-
2624	С	Т	0.353297	synonymous variant	pk-1	Non-core gene	p.Asp144Asp	-
2837	С	Т	0.226688	synonymous_variant	pk-1	Non-core gene	p.Phe215Phe	-
2879	Α	G		synonymous_variant	pk-1	Non-core gene	p.Leu229Leu	-
3068	С	Т	0.261153	upstream_gene_variant	-	-	-	-
3074	С	Α		upstream_gene_variant	-	-	-	-
3076	Т	Α		upstream_gene_variant	-	-	-	-
3236		Т		synonymous_variant	hoar	Non-core gene	p.Glu422Glu	-
3530		G		synonymous_variant	hoar	Non-core gene	p.lle324lle	-
3656		G		synonymous_variant	hoar	Non-core gene	p.Val282Val	-
4079	G	Α		synonymous_variant	hoar	Non-core gene	p.lle141lle	-
4689	Α	G		synonymous_variant	sf5	Non-core gene	p.Val13Val	-
4719	G	Α		synonymous_variant	sf5	Non-core gene	p.Phe3Phe	-
4733	Т	С		synonymous_variant	sf6	Non-core gene	p.Pro56Pro	-
4796	Т	С		synonymous_variant	sf6		p.Lys35Lys	-
5260	С	Т		synonymous_variant	sf8	Non-core gene	p.lle42lle	-
5995	Α	G		synonymous_variant	sf8	Non-core gene	p.Leu287Leu	-
6203	Α	Т		missense_variant	sf8	Non-core gene	p.Thr357Ser	-
6401		Т		synonymous variant	sf8	Non-core gene	p.Leu423Leu	-
6550	Α	G	0.498274	synonymous_variant	sf8	Non-core gene	p.Lys472Lys	-
6702	Α	Т		upstream_gene_variant	-	-	-	-
6715		Т		upstream_gene_variant	-	-	_	-
6826		С		synonymous_variant	pif-5	Core gene	p.Ser18Ser	-
6973	Α	Т		missense_variant	pif-5	Core gene	p.Glu67Asp	-
7453		Т		synonymous_variant	pif-5	Core gene	p.Asp227Asp	-
7630		С		synonymous_variant	pif-5	Core gene	p.Phe286Phe	-
7819		Α		synonymous_variant	pif-5	Core gene	p.Gln349Gln	-
8642		Α		synonymous_variant	me53	Non-core gene	p.Lys187Lys	-
8669		Α		synonymous_variant	me53	Non-core gene	p.Lys196Lys	-
8851		Α		missense_variant	me53	Non-core gene	p.Thr257Asn	-
9183		G		upstream_gene_variant	-	-	-	-
9188		G		upstream_gene_variant	-	-	-	_
9245		С		upstream_gene_variant	-	-	-	-
9248		T		upstream_gene_variant	_	_	_	_

	_				I			
9283		С		upstream_gene_variant	-	-	-	-
9303		Α		upstream_gene_variant	-	-	-	-
9547		С		upstream_gene_variant	-	-	-	-
9599		Α		upstream_gene_variant	-	-	-	-
9803	Α	С	0.012888	upstream_gene_variant	-	-	-	-
9812	Т	С	0.007088	upstream_gene_variant	-	-	-	-
9827	Α	T	0.005995	upstream_gene_variant	-	-	-	-
10224	Т	С	0.004801	upstream_gene_variant	-	-	-	-
10244	Α	G	0.003999	upstream_gene_variant	-	-	-	-
10428	G	Α	0.392324	upstream_gene_variant	-	-	-	-
10830	G	Α	0.235504	upstream_gene_variant	-	-	-	-
10867	С	Α	0.008106	upstream_gene_variant	-	-	-	-
10879	Т	Α	0.336714	upstream_gene_variant	-	-	-	-
11211	Α	G	0.386287	synonymous_variant	efp	Non-core gene	p.Thr12Thr	-
12084	С	Т	0.340726	synonymous_variant	efp	Non-core gene	p.Thr303Thr	-
12150	С	Т	0.339107	synonymous_variant	efp	Non-core gene	p.Val325Val	-
12387	Т	С	0.46212	synonymous_variant	efp	Non-core gene	p.Cys404Cys	-
12696	Α	G	0.196697	synonymous_variant	efp	Non-core gene	p.Leu507Leu	-
12823	Т	С	0.307922	synonymous_variant	efp	Non-core gene	p.Leu550Leu	-
12825	Α	G	0.308165	synonymous_variant	efp	Non-core gene	p.Leu550Leu	-
13204	С	Α	0.003525	missense_variant	efp	Non-core gene	p.Pro677Thr	+
13329	G	Т	0.005146	upstream_gene_variant	-	-	-	-
13341	G	Т	0.003413	upstream_gene_variant	-	-	-	-
13900	С	Т	0.004451	missense_variant	p24	Non-core gene	p.Ser175Asn	-
13911	Α	G	0.023922	synonymous_variant	p24	Non-core gene	p.Asn171Asn	-
14082	G	Α	0.43926	synonymous_variant	p24	Non-core gene	p.Arg114Arg	-
14202	G	Α	0.498627	synonymous_variant	p24	Non-core gene	p.Val74Val	-
14208	Α	G		synonymous_variant	p24	Non-core gene	p.Pro72Pro	-
14244	Α	G	0.502168	synonymous variant	p24	Non-core gene	p.Leu60Leu	-
14671	Т	С	0.371901	synonymous_variant	sf15	Non-core gene	p.Arg67Arg	-
14909	Α	G	0.376492	synonymous_variant	lef-2	Core gene	p.Lys49Lys	-
15143	С	Т		synonymous_variant	lef-2	Core gene	p.Gly127Gly	-
15363	Т	Α		missense_variant	lef-2	Core gene	p.Leu201Met	-
15371		С		synonymous_variant	lef-2	Core gene	p.Asn203Asn	-
15436		Т		upstream_gene_variant	_	-	-	-
15480		Α		synonymous variant	38.7k	Non-core gene	p.Thr374Thr	-
15651		Т		synonymous variant	38.7k	Non-core gene	p.Arg317Arg	-
15678		С		synonymous_variant	38.7k	Non-core gene	p.Glu308Glu	-
15686		С		missense variant	38.7k	Non-core gene	p.Ser306Gly	+
15870		Α		synonymous_variant	38.7k	Non-core gene	p.Ser244Ser	-
15882		Т		synonymous_variant	38.7k	Non-core gene	p.Lys240Lys	-
15921		G		synonymous_variant	38.7k	Non-core gene	p.Asp227Asp	-
16293		G		synonymous_variant	38.7k	Non-core gene	p.Asp103Asp	-
16344		Т		synonymous_variant	38.7k	Non-core gene	p.Ala86Ala	-
16349		C		missense_variant	38.7k	Non-core gene	p.Phe85Val	_
16395		С		synonymous_variant	38.7k	Non-core gene	p.Thr69Thr	_
17211		A		synonymous_variant	lef-1	Core gene	p.Ser38Ser	-
17212		Α		missense_variant	lef-1	Core gene	p.Ser38Phe	+
17632		T		synonymous_variant	sf19	Non-core gene	p.Pro106Pro	_
17719		С		missense_variant	sf19	Non-core gene	p.Lys135Asn	+
11119	/1	9	0.004100	missense_variant	3113	14011-0016 yelle	p.Lya IJUMSII	•

17739	С	Т	0.012036	synonymous_variant	v-cath	Non-core gene	p.Leu332Leu	-
17970		Α		synonymous_variant	v-cath	Non-core gene	p.Val255Val	_
18345		G		synonymous_variant	v-cath	Non-core gene	p.Ala130Ala	_
18405	T	С		synonymous_variant	v-cath	Non-core gene	p.Leu110Leu	_
18507	С	Т		synonymous_variant	v-cath	Non-core gene	p.Lys76Lys	-
18836	Т	Α		upstream_gene_variant	-	-	-	-
18839	G	Т	0.004445	upstream_gene_variant	-	-	-	-
18891	С	Α	0.008375	missense_variant	lef-7	Non-core gene	p.Met339lle	-
19116	С	Т	0.356062	synonymous_variant	lef-7	Non-core gene	p.Gly264Gly	-
19117	С	Т	0.355982	missense_variant	lef-7	Non-core gene	p.Gly264Glu	+
19140	С	Т	0.373421	missense_variant	lef-7	Non-core gene	p.Met256lle	-
19200	С	Т	0.384066	synonymous_variant	lef-7	Non-core gene	p.Val236Val	-
19481	Т	С	0.171192	missense_variant	lef-7	Non-core gene	p.Thr143Ala	+
19773	С	G	0.176121	missense_variant	lef-7	Non-core gene	p.Glu45Asp	-
20098	Т	С	0.188535	synonymous_variant	chiA	Non-core gene	p.Ser54Ser	-
20380	Α	G	0.178233	synonymous_variant	chiA	Non-core gene	p.Lys148Lys	-
20743	G	Α	0.177161	synonymous_variant	chiA	Non-core gene	p.Gly269Gly	-
21173	Т	С	0.202901	missense_variant	chiA	Non-core gene	p.Ser413Pro	+
21200	С	Т	0.203869	synonymous_variant	chiA	Non-core gene	p.Leu422Leu	-
21515	Т	С	0.061235	synonymous_variant	chiA	Non-core gene	p.Leu527Leu	-
22253	Т	С	0.346836	synonymous_variant	sf23	Non-core gene	p.Tyr122Tyr	-
22470	G	Α	0.010548	missense_variant	sf23	Non-core gene	p.Glu195Lys	+
22479	Α	G	0.341355	missense_variant	sf23	Non-core gene	p.Lys198Glu	+
22482	Α	G	0.286872	missense_variant	sf23	Non-core gene	p.Lys199Glu	+
22494	G	Α	0.026888	missense_variant	sf23	Non-core gene	p.Glu203Lys	+
22499	Т	Α	0.011601	missense_variant	sf23	Non-core gene	p.Asp204Glu	-
22499	Т	G	0.022402	missense_variant	sf23	Non-core gene	p.Asp204Glu	-
22538	С	Α	0.005475	synonymous_variant	sf23	Non-core gene	p.lle217lle	-
22604	Α	G	0.01103	upstream_gene_variant	-	-	-	-
22646	G	Т	0.003882	upstream_gene_variant	-	-	-	-
22973	Т	С	0.374311	missense_variant	gp37	Non-core gene	p.Ser104Pro	+
23285	G	Т	0.369534	missense_variant	gp37	Non-core gene	p.Ala208Ser	+
23314	G	Α	0.364128	synonymous_variant	gp37	Non-core gene	p.Arg217Arg	-
23371	Т	С	0.368919	synonymous_variant	gp37	Non-core gene	p.Val236Val	-
23377	Α	С	0.367085	synonymous_variant	gp37	Non-core gene	p.Gly238Gly	-
23434	Т	С	0.334594	synonymous_variant	gp37	Non-core gene	p.His257His	-
23446	G	Α	0.358656	splice_region_variant&stop	gp37	Non-core gene	p.Ter261Ter	-
23548	G	Α	0.394233	synonymous_variant	ptp-2	Non-core gene	p.lle133lle	-
24210	G	Α	0.004293	missense_variant	egt	Non-core gene	p.Val57lle	-
24212	С	Т	0.004023	synonymous_variant	egt	Non-core gene	p.Val57Val	-
24431	С	Т	0.174474	synonymous_variant	egt	Non-core gene	p.Ser130Ser	-
24515	T	С	0.172463	synonymous_variant	egt	Non-core gene	p.lle158lle	-
24590	G	Т	0.09148	synonymous_variant	egt	Non-core gene	p.Ala183Ala	-
24677	G	С	0.186078	synonymous_variant	egt	Non-core gene	p.Val212Val	-
24987	G	Т	0.190517	missense_variant	egt	Non-core gene	p.Gly316Cys	+
25040	Т	С	0.230385	synonymous_variant	egt	Non-core gene	p.Leu333Leu	-
25283	G	Α	0.228609	missense_variant	egt	Non-core gene	p.Met414lle	-
25424	G	Т	0.24549	missense_variant	egt	Non-core gene	p.Met461lle	-
27046	С	Α	0.00478	missense_variant	sf29	Non-core gene	p.Lys866Asn	+
27541	Α	G	0.302098	synonymous_variant	sf29	Non-core gene	p.Phe701Phe	-

27550	G	٨	0.41044	synonymous variont	cf20	Non core core	n Dhasaonha	
27550 27631		A G		synonymous_variant	sf29 sf29	Non-core gene	p.Phe698Phe	-
				synonymous_variant		Non-core gene	p.Ala671Ala	-
27715		G		synonymous_variant	sf29	Non-core gene	p.Phe643Phe	-
27878		G		missense_variant	sf29	Non-core gene	p.Leu589Ser	+
27937		A		synonymous_variant	sf29	Non-core gene	p.lle569lle	-
28031		С		missense_variant	sf29	Non-core gene	p.Lys538Arg	-
28132		G		synonymous_variant	sf29	Non-core gene	p.Asn504Asn	-
28156		A T		synonymous_variant	sf29	Non-core gene	p.Asn496Asn	-
28162				synonymous_variant	sf29	Non-core gene	p.lle494lle	-
28180		A		synonymous_variant	sf29	Non-core gene	p.Asn488Asn	-
28213		С		synonymous_variant	sf29	Non-core gene	p.Lys477Lys	-
28360		G		synonymous_variant	sf29	Non-core gene	p.Val428Val	-
28363		A		synonymous_variant	sf29	Non-core gene	p.Leu427Leu	-
28444		A		synonymous_variant	sf29	Non-core gene	p.Arg400Arg	-
28486		A		synonymous_variant	sf29	Non-core gene	p.Phe386Phe	-
28648		G		synonymous_variant	sf29	Non-core gene	p.Asn332Asn	-
28652		T		missense_variant	sf29	Non-core gene	p.Arg331Lys	-
28887		T		missense_variant	sf29	Non-core gene	p.Val253lle	-
28907		G		missense_variant	sf29	Non-core gene	p.Ser246Thr	-
29384		T		missense_variant	sf29	Non-core gene	p.Arg87His	-
29507		C		missense_variant	sf29	Non-core gene	p.His46Arg	-
29514		T		missense_variant	sf29	Non-core gene	p.Val44lle	-
29651		G		upstream_gene_variant	-	-	-	-
30287		Α		synonymous_variant	sf30	Non-core gene	p.Leu178Leu	-
30310		С	0.354487	upstream_gene_variant	-	-	-	-
30315		Т		upstream_gene_variant	-	-	-	-
30320		G		upstream_gene_variant	-	-	-	-
30364		Α		upstream_gene_variant	-	-	-	-
30372		С		upstream_gene_variant	-	-	-	-
30641		Α	0.331372	synonymous_variant	pkip-1	Non-core gene	p.Leu85Leu	-
30677		С	0.332477	synonymous_variant	pkip-1	Non-core gene	p.Tyr97Tyr	-
30725		G		synonymous_variant	pkip-1	Non-core gene	p.Thr113Thr	-
30740		G		synonymous_variant	pkip-1	Non-core gene	p.Ala118Ala	-
31534		Т		missense_variant	arif-1	Non-core gene	p.Val264lle	-
31537		Т		missense_variant	arif-1	Non-core gene	p.Ala263Thr	+
31769		Т		synonymous_variant	arif-1	Non-core gene	p.Thr185Thr	-
31964		Т		synonymous_variant	arif-1	Non-core gene	p.Thr120Thr	-
32173		С		missense_variant	arif-1	Non-core gene	p.Thr51Ala	+
33167		Α		synonymous_variant	pif-2	Core gene	p.Glu316Glu	-
33311		Α		synonymous_variant	pif-2	Core gene	p.Ser364Ser	-
33386		Т		synonymous_variant	pif-2	Core gene	p.Phe389Phe	-
33482		Α	0.222625	missense_variant	pif-1	Core gene	p.Val17lle	-
33985		Т		synonymous_variant	pif-1	Core gene	p.Cys184Cys	-
34069		С		synonymous_variant	pif-1	Core gene	p.lle212lle	-
34783		Т	0.419288	synonymous_variant	pif-1	Core gene	p.Gly450Gly	-
34852	Т	С	0.362472	synonymous_variant	pif-1	Core gene	p.Asn473Asn	-
34975	Т	С	0.007458	synonymous_variant	pif-1	Core gene	p.Asn514Asn	-
35205	Α	С	0.113127	synonymous_variant	sf36	Non-core gene	p.Arg59Arg	-
35467	С	Т	0.458846	missense_variant	fgf	Non-core gene	p.Val321lle	-
35510	Α	G	0.454448	synonymous_variant	fgf	Non-core gene	p.Val306Val	-

35699	^	Т	0.204421	avnanymana variant	fof	Non core gone	n Lyo242Lyo	
35808		A		synonymous_variant	fgf	Non-core gene	p.Lys243Lys	+
35870		T		missense_variant missense_variant	fgf fgf	Non-core gene	p.Ser207Leu p.Asp186Glu	-
36080		G		synonymous variant	fgf	Non-core gene	p.Asp160Glu p.Ala116Ala	-
36191		С		synonymous variant	fgf	Non-core gene	p.Leu79Leu	_
36287		T		synonymous_variant	fgf	Non-core gene	p.Thr47Thr	_
36348		С		missense_variant	fgf	Non-core gene	p.Asn27Ser	_
36565		A		upstream_gene_variant	-	-	-	_
36567		A		upstream_gene_variant	_	_	_	_
36625		G		upstream_gene_variant	_	_	-	-
36655		С		upstream_gene_variant	_	_	-	-
36849		A		synonymous_variant	sf38	Non-core gene	p.Ser60Ser	-
37083		С		synonymous_variant	sf38	Non-core gene	p.Thr138Thr	-
37110		Т		synonymous variant	sf38	Non-core gene	p.His147His	-
37146	A	С		synonymous_variant	sf38	Non-core gene	p.lle159lle	-
37383	G	Т		missense_variant	sf38	Non-core gene	p.Leu238Phe	-
37569	G	Α		synonymous variant	alk-exo	Core gene	p.lle359lle	-
37788	Α	G	0.372487	synonymous_variant	alk-exo	Core gene	p.Ser286Ser	-
37836	Т	С		synonymous_variant	alk-exo	Core gene	p.Lys270Lys	-
37950	Т	С	0.386699	synonymous_variant	alk-exo	Core gene	p.Ser232Ser	-
38393	G	Α	0.264549	synonymous_variant	alk-exo	Core gene	p.Leu85Leu	-
38709	Α	G	0.490534	upstream_gene_variant	-	-	-	-
38718	С	Т	0.466389	upstream_gene_variant	-	-	-	-
38719	Α	G	0.464598	upstream_gene_variant	-	-	-	-
38751	Α	Т	0.479885	upstream_gene_variant	-	-	-	-
38823	Α	G	0.218346	upstream_gene_variant	-	-	-	-
38827	Т	G	0.217791	upstream_gene_variant	-	-	-	-
38836	G	Α	0.221082	upstream_gene_variant	-	-	-	-
38991	Α	С	0.206177	upstream_gene_variant	-	-	-	-
39004	С	G	0.203746	upstream_gene_variant	-	-	-	-
39013	Т	С	0.180698	upstream_gene_variant	-	-	-	-
39014	G	Α	0.179394	upstream_gene_variant	-	-	-	-
39033		Т	0.214792	upstream_gene_variant	-	-	-	-
39046		Α	0.217527	upstream_gene_variant	-	-	-	-
39058		Т		upstream_gene_variant	-	-	-	-
39067		G		upstream_gene_variant	-	-	-	-
39075		Т		upstream_gene_variant	-	-	-	-
39090		G		upstream_gene_variant	-	-	-	-
39101		Т		upstream_gene_variant	-	-	-	-
39159		T		upstream_gene_variant	-	-	-	-
39172		С		upstream_gene_variant	-	<del>-</del>	-	-
39245		G		synonymous_variant	sf40	-	p.Asp92Asp	-
39411		A		missense_variant	sf40		p.Ala37Val	-
40553		C		synonymous_variant	sf41	Non-core gene	p.lle345lle	-
40586		T		missense_variant	sf41	-	p.Trp356Cys	+
40587		T		stop_gained	sf41	Non-core gene	p.Glu357*	-
40717		T		missense_variant	sf42	Non-core gene	p.Asp115Asn	+
41137		A		stop_gained	sf43	Non-core gene	p.Glu392*	-
41878		Т		missense_variant	sf43	Non-core gene	p.Leu145lle	-
41953	G	Т	0.484333	missense_variant	sf43	Non-core gene	p.Leu120lle	-

42505	Α	G	0.300087	upstream_gene_variant	-	-	-	_
42507	Α	С		upstream_gene_variant	_	_	-	-
42550	Т	С		synonymous_variant	sf44	Non-core gene	p.Arg11Arg	_
42575		Α		missense_variant	sf44	Non-core gene	p.Gly20Ser	+
42583		Α		synonymous_variant	sf44	Non-core gene	p.Lys22Lys	_
42649		Т		synonymous_variant	sf44	Non-core gene	p.lle44lle	_
42956		Α		missense_variant	sf44	Non-core gene	p.Val147lle	_
43743		G		missense_variant	рер	Non-core gene	p.Asn194His	+
44297		Α		missense_variant	рер	Non-core gene	p.Gln9Leu	+
44314		Α		missense_variant	рер	_	p.Leu3Phe	_
44318		Α		missense_variant	рер	Non-core gene	p.Ser2Leu	+
44320		Α		start_lost	рер	Non-core gene	p.Met1?	_
44327		Α		upstream_gene_variant	-	-	-	_
44333		Α		upstream_gene_variant	_	_	_	_
44358		Α		upstream_gene_variant	_	_	_	_
44737		T		missense_variant	sf47	Non-core gene	p.Cys74Ser	+
44738		С		stop_gained	sf47	Non-core gene	p.Tyr73*	_
44750		G		synonymous_variant	sf47	Non-core gene	p.Pro69Pro	_
45206		С		synonymous variant	sod	-	p.Ser91Ser	_
45483		A		upstream_gene_variant	_	-	-	_
45769		С		missense_variant	pif-3	Core gene	p.Lys75Gln	+
46375		G		synonymous_variant	sf50	Non-core gene	p.Val66Val	_
46495		С		synonymous_variant	sf50	Non-core gene	p.Ser106Ser	-
46525		С		synonymous_variant	sf50	Non-core gene	p.Tyr116Tyr	_
47026		G		missense_variant	sf51	Non-core gene	p.lle146Val	_
47625		T		synonymous_variant	sf51	Non-core gene	p.Phe345Phe	_
48172		A		synonymous_variant	sf52	Non-core gene	p.Glu2Glu	_
49034		C		synonymous_variant	sf53	Non-core gene	p.Lys310Lys	_
49316		С		synonymous_variant	sf53	Non-core gene	p.Lys216Lys	_
49640		A		synonymous variant	sf53		p.Phe108Phe	_
50155		C		upstream_gene_variant	-	-	-	_
50160		G		upstream_gene_variant	_	_	_	_
50169		С		upstream_gene_variant		_	_	_
50180		G		upstream_gene_variant	_	_	_	_
50185		С		upstream_gene_variant	_	_	_	_
50192		T		upstream gene variant	_	_	_	_
50197		G		upstream_gene_variant		_	_	_
50203		A		upstream_gene_variant		_	_	_
50208		C		upstream_gene_variant	_	_	_	_
50220		T		upstream_gene_variant	_	_	_	_
50221		G		upstream_gene_variant	_	_	_	_
50256		A		upstream_gene_variant		_	_	_
50264		G		upstream_gene_variant	_	_	_	_
50204		G		upstream_gene_variant	-	_	_	_
50326		G		upstream_gene_variant	_	_	_	_
50328		A		upstream_gene_variant	_	_	_	_
50326		G				<del>-</del>	<del>-</del>  _	<del>-</del>
50335		T		upstream_gene_variant		<del>-</del>	<del>-</del>  _	<del>-</del>
50336		G		upstream_gene_variant	-	<del>-</del>	<del>-</del>	<del>-</del>
				upstream_gene_variant	-	<del>-</del>	-	-
50503	C	T	0.3/9/86	upstream_gene_variant	-	-	-	-

E4000	Δ	<b>-</b>	0.000000			Niama anna mana	- Ol-0011:-	
51093		Т		missense_variant	sf55	Non-core gene	p.Gln29His	+
51852		С		synonymous_variant	p13		p.lle53lle	-
52622		C		synonymous_variant	odv-e66	Non-core gene	p.Phe12Phe	-
52631		T		synonymous_variant	odv-e66	Non-core gene	p.Phe15Phe	-
52728		T		missense_variant	odv-e66	Non-core gene	p.Asn48Tyr	-
52737		Т		missense_variant	odv-e66	Non-core gene	p.Asn51Tyr	-
52757		С		synonymous_variant	odv-e66	Non-core gene	p.Asn57Asn	-
52760		C		missense_variant	odv-e66	Non-core gene	p.Glu58Asp	-
52788		A		missense_variant	odv-e66	Non-core gene	p.Asp68Asn	+
53222		C		synonymous_variant	odv-e66	Non-core gene	p.Tyr212Tyr	-
53363		A		synonymous_variant	odv-e66	_	p.Lys259Lys	-
53507		C		synonymous_variant	odv-e66	Non-core gene	p.Leu307Leu	-
53642		T		synonymous_variant	odv-e66	Non-core gene	p.lle352lle	-
53656		G		missense_variant	odv-e66	Non-core gene	p.Asp357Gly	+
53849		T		synonymous_variant	odv-e66	Non-core gene	p.Gly421Gly	-
53870		С		synonymous_variant	odv-e66	Non-core gene	p.Leu428Leu	-
54120		Α	0.411667	missense_variant	odv-e66	Non-core gene	p.Leu512lle	-
54239		Т	0.443469	synonymous_variant	odv-e66	Non-core gene	p.Asp551Asp	-
54275		С	0.440102	synonymous_variant	odv-e66	Non-core gene	p.Ala563Ala	-
54281	G	Α	0.441072	synonymous_variant	odv-e66	Non-core gene	p.Gln565Gln	-
54340	Т	С	0.436461	missense_variant	odv-e66	Non-core gene	p.Val585Ala	-
54368	Т	G	0.44172	synonymous_variant	odv-e66	Non-core gene	p.Thr594Thr	-
54458	G	Α	0.330885	synonymous_variant	odv-e66	Non-core gene	p.Val624Val	-
54461	Т	С	0.329788	synonymous_variant	odv-e66	Non-core gene	p.Leu625Leu	-
54532	G	Α	0.331238	missense_variant	odv-e66	Non-core gene	p.Ser649Asn	-
54601	С	Т	0.335931	missense_variant	odv-e66	Non-core gene	p.Ser672Leu	+
54638	Т	С	0.336108	synonymous_variant	odv-e66	Non-core gene	p.Phe684Phe	-
54682	Т	С	0.334834	synonymous_variant	sf58	Non-core gene	p.Pro111Pro	-
54751	Т	G	0.005698	synonymous_variant	sf58	Non-core gene	p.Ala88Ala	-
54784	G	Α	0.330889	synonymous_variant	sf58	Non-core gene	p.Phe77Phe	-
54789	Т	G	0.004107	missense_variant	sf58	Non-core gene	p.Thr76Pro	+
55067	Т	С	0.30062	synonymous_variant	odv-ec43	Core gene	p.Ala349Ala	-
55094	Т	С	0.23226	synonymous_variant	odv-ec43	Core gene	p.Thr340Thr	-
56321	G	Α	0.232109	synonymous_variant	vp80	Non-core gene	p.Asp556Asp	-
56617	Α	Т	0.244473	missense_variant	vp80	Non-core gene	p.Phe458lle	-
56821	Т	С	0.243673	missense_variant	vp80	Non-core gene	p.lle390Val	-
57588	С	Α	0.244501	missense_variant	vp80	Non-core gene	p.Gly134Val	+
57643	С	Т	0.33871	missense_variant	vp80	Non-core gene	p.Asp116Asn	+
57847	С	Т	0.323614	missense_variant	vp80	Non-core gene	p.Val48lle	-
57941	G	Α	0.330743	synonymous_variant	vp80	Non-core gene	p.Phe16Phe	-
58059	С	Α	0.003507	missense_variant	p45	Core gene	p.Phe10Leu	-
58284	С	Т	0.33102	synonymous_variant	p45	Core gene	p.Phe85Phe	-
58692	Т	С	0.329317	synonymous_variant	p45	Core gene	p.Cys221Cys	-
58722	С	Т	0.335355	synonymous_variant	p45	Core gene	p.His231His	-
58800	Т	С	0.3496	synonymous_variant	p45	Core gene	p.Phe257Phe	-
58866	G	Α	0.351791	synonymous_variant	p45	Core gene	p.Val279Val	-
58959	С	Т	0.35474	synonymous_variant	p45	Core gene	p.Phe310Phe	-
58995	Т	С	0.348658	synonymous_variant	p45	Core gene	p.Tyr322Tyr	-
59281	С	Т	0.005954	synonymous_variant	p12	Non-core gene	p.Ala49Ala	-
	Α	С	0.00260	missense_variant	p40	Core gene	p.Gln48Pro	+

59667	Т	G	0.00375	missense_variant	p40	Core gene	p.Leu69Val	-
59681		С		synonymous variant	p40 p40	Core gene	p.Ala73Ala	_
59709		С		missense_variant	p40	Core gene	p.Glu83Gln	+
59716		A		missense_variant	p40	Core gene	p.Pro85Gln	+
60047		С		synonymous variant	p40	Core gene	p.Asp195Asp	-
60053		T		synonymous_variant	p40	Core gene	p.lle197lle	-
60079		A		missense_variant	p40	Core gene	p.Ser206Tyr	-
60357		С		synonymous_variant	p40	Core gene	p.Leu299Leu	_
60380		С		synonymous_variant	p40	Core gene	p.Ala306Ala	-
60564		G		missense_variant	p40	Core gene	p.Ser368Gly	+
61017	С	Т		synonymous_variant	lef-5	Core gene	p.Leu239Leu	-
61236	С	Т	0.25257	synonymous_variant	lef-5	Core gene	p.Pro166Pro	-
61822	С	Т	0.429832	missense_variant	38k	Core gene	p.Ala64Val	-
62030	G	Α		synonymous_variant	38k	Core gene	p.Thr133Thr	-
62402	Т	С	0.460192	synonymous_variant	38k	Core gene	p.Leu257Leu	-
62582	Α	G	0.32858	missense_variant	sf68	Non-core gene	p.lle13Val	-
62592	С	Α	0.003489	missense_variant	sf68	Non-core gene	p.Thr16Lys	+
62791	G	Α	0.449136	synonymous_variant	sf68	Non-core gene	p.Pro82Pro	-
62799	A	Т	0.449252	missense_variant	sf68	Non-core gene	p.Lys85lle	+
62840	G	Α	0.354685	missense_variant	sf68	Non-core gene	p.Val99lle	-
62859	С	Т	0.294688	missense_variant	sf68	Non-core gene	p.Ser105Leu	+
64029	G	Т	0.00316	upstream_gene_variant	-	-	-	-
64055	Α	Т	0.004147	upstream_gene_variant	-	-	-	-
64659	G	Α	0.341868	synonymous_variant	pif-4	Core gene	p.Asn134Asn	-
64902	С	Т	0.332821	synonymous_variant	pif-4	Core gene	p.Ser53Ser	-
65138	T	С	0.22774	missense_variant	dnahel	Core gene	p.Val36Ala	-
65496	С	Т	0.178261	synonymous_variant	dnahel	Core gene	p.Tyr155Tyr	-
65655	С	Т	0.431847	synonymous_variant	dnahel	Core gene	p.Gly208Gly	-
65658	С	Α	0.43098	synonymous_variant	dnahel	Core gene	p.Arg209Arg	-
66096	Т	С	0.236695	synonymous_variant	dnahel	Core gene	p.lle355lle	-
66603	С	Т	0.469387	synonymous_variant	dnahel	Core gene	p.Thr524Thr	-
66861	G	Α	0.198759	synonymous_variant	dnahel	Core gene	p.Ser610Ser	-
67219		Т	0.004185	missense_variant	dnahel	Core gene	p.His730Tyr	+
67473		Т	0.006323	synonymous_variant	dnahel	Core gene	p.Asn814Asn	-
67476		Т	0.028531	synonymous_variant	dnahel	Core gene	p.Asp815Asp	-
68007		С		synonymous_variant	dnahel	Core gene	p.Asp992Asp	-
69521		G		synonymous_variant	p18	Core gene	p.lle134lle	-
69673		Α	0.003539	missense_variant	p18	Core gene	p.Asp84Tyr	+
69815		Α		synonymous_variant	p18	Core gene	p.lle36lle	-
69821		Α		synonymous_variant	p18	Core gene	p.Gly34Gly	-
70268		T		synonymous_variant	p33	Core gene	p.Phe115Phe	-
70330		C		missense_variant	p33	Core gene	p.lle136Thr	+
70331		C		synonymous_variant	p33	Core gene	p.lle136lle	-
70439		A		synonymous_variant	p33	Core gene	p.Ser172Ser	-
70455		T		synonymous_variant	p33	Core gene	p.Leu178Leu	-
70674		T		synonymous_variant	p33	Core gene	p.Leu251Leu	-
70701		A		upstream_gene_variant	-	-	- "	-
70787		С		missense_variant	lef-4	Core gene	p.lle440Ser	+
70864		C		synonymous_variant	lef-4	Core gene	p.Glu414Glu	-
71008	C	Т	0.205857	synonymous_variant	lef-4	Core gene	p.Pro366Pro	-

81611	Α	G	0.185822	synonymous_variant	p26a	Non-core gene	p.His206His	-
81548	G	Α	0.18261	synonymous_variant	p26a	Non-core gene	p.lle227lle	-
81545	Α	G	0.181923	synonymous_variant	p26a	Non-core gene	p.Asn228Asn	-
81516	Т	G	0.003262	missense_variant	p26a	Non-core gene	p.Lys238Thr	+
81465	С	Т	0.189883	upstream_gene_variant	-	-	-	-
81454	С	Т	0.191125	upstream_gene_variant	-	-	-	-
81447	С	Т	0.001979	upstream_gene_variant	-		-	-
81411	Α	Т	0.008479	upstream_gene_variant	-	-	-	-
81380	G	Α	0.125711	upstream_gene_variant	-	-	-	-
31378	Т	G	0.122671	upstream_gene_variant	-	-	-	-
31375	С	Α	0.123302	upstream_gene_variant	-	-	-	-
31373	Т	С		upstream_gene_variant	-	-	-	-
31366	Т	Α	0.480329	upstream_gene_variant	-	-	-	-
31359	Α	С	0.004488	upstream_gene_variant	-	-	-	-
31335	Α	С	0.180825	missense_variant	sf85	Non-core gene	p.Tyr8Asp	+
31272	Т	С		missense_variant	sf85	Non-core gene	p.Asn29Asp	+
31229	G	Α	0.151441	missense_variant	sf85	Non-core gene	p.Ser43Leu	+
31206	G	Α		synonymous_variant	sf85	Non-core gene	p.Leu51Leu	-
31123	Т	С		upstream_gene_variant	-	-	-	-
31113	G	Α	0.150871	upstream_gene_variant	-	-	-	-
31104		Т		upstream_gene_variant	-	-	-	-
30949		T		upstream_gene_variant	-	-	-	-
30839		С		upstream_gene_variant	-	-	-	-
30574		T		synonymous_variant	vlf-1	Core gene	p.Tyr310Tyr	-
9872		С		synonymous_variant	vlf-1	Core gene	p.lle76lle	-
9846		Т		synonymous_variant	vlf-1	Core gene	p.Leu68Leu	-
9190		Т		synonymous_variant	gp41	Core gene	p.Thr306Thr	-
8590		G		synonymous_variant	gp41	Core gene	p.Pro106Pro	-
8479		Т		synonymous_variant	gp41	Core gene	p.Asn69Asn	-
'8416		Т		synonymous_variant	gp41	Core gene	p.Tyr48Tyr	-
8354		G		missense_variant	gp41	Core gene	p.Thr28Ala	+
8353		G		synonymous_variant	gp41	Core gene	p.Thr27Thr	-
78351		G		missense_variant	gp41	Core gene	p.Thr27Ala	+
8345		T		missense variant	gp41	Core gene	p.Ala25Ser	+
77920		T		synonymous_variant	ac81-like	Core gene	p.Phe116Phe	-
7034		T		synonymous variant	pif-8	Core gene	p.Gln58Gln	-
76515		T		synonymous_variant	pif-8	Core gene	p.Leu231Leu	-
5257		С		missense_variant	pif-8	Core gene	p.Ser651Gly	+
75237		С		missense_variant	pif-8	Core gene	p.Asp657Glu	_
74945		T		missense_variant	pif-8	Core gene	p.Val755Met	_
74811		A		synonymous_variant	pif-8	Core gene	p.Cys799Cys	_
74394		A		synonymous_variant	cg30	Non-core gene	p.Ser364Ser	_
74373		T		synonymous_variant	cg30	Non-core gene	p.Asp357Asp	_
74262		T		missense_variant	cg30	Non-core gene	p.Glu320Asp	_
73425		T		synonymous_variant	cg30	Non-core gene	p.Cys41Cys	_
73244		T		upstream_gene_variant	<u> </u>		<del>-</del>	
73148		T		upstream_gene_variant	-  -	<del> </del>	<del>-</del>	_
73143		G T		upstream_gene_variant	161-4	Core gene	p.lie roolle	_
71647		( <del>-</del>	0.280348	synonymous_variant	lef-4	Core gene	p.lle153lle	_

81656	G	А	0.185335	synonymous_variant	p26a	Non-core gene	p.Asp191Asp	-
81665	Т	С		synonymous_variant	p26a	Non-core gene	p.Val188Val	-
81911	T	С		synonymous_variant	p26a	Non-core gene	p.Arg106Arg	-
82019		Т		synonymous variant	p26a	Non-core gene	p.Lys70Lys	_
82027		Т		missense_variant	p26a	Non-core gene	p.Asp68Asn	+
82157		Т		synonymous_variant	p26a	Non-core gene	p.Thr24Thr	_
82810		T		synonymous_variant	iap-0	Non-core gene	p.Glu110Glu	_
82969		T		synonymous_variant	iap-0	Non-core gene	p.Arg57Arg	_
83390		T		synonymous_variant	mtase-1	Non-core gene	p.Ser151Ser	_
83486		G		synonymous_variant	mtase-1	Non-core gene	p.Val119Val	_
83552		A		synonymous_variant	mtase-1	Non-core gene	p.Phe97Phe	_
83606		A		synonymous_variant	mtase-1	Non-core gene	p.Asn79Asn	_
84573		A		synonymous_variant	lef-3	Non-core gene	p.Glu122Glu	_
84591		A		synonymous_variant	lef-3	Non-core gene	p.Lys128Lys	_
84617		C		missense_variant	lef-3	Non-core gene	p.Glu137Ala	+
84723		T		synonymous_variant	lef-3	Non-core gene	p.Asn172Asn	-
84865		G		missense_variant	lef-3	Non-core gene	p.lle220Val	_
84885		T		synonymous_variant	lef-3	Non-core gene	p.lle226lle	-
85395		A		upstream_gene_variant	-	_	p.11022011 <del>0</del>	-
85415					-	-	-	-
		A		upstream_gene_variant	doomonlakin	Coro gono	- n Clu6291 vo	_
85663		Т		missense_variant	desmoplakin	_	p.Glu638Lys	+
86324		G		synonymous_variant	desmoplakin	Core gene	p.Ala417Ala	-
86561		С		synonymous_variant	desmoplakin	Core gene	p.Glu338Glu	-
86663		G		synonymous_variant	desmoplakin	Core gene	p.Ala304Ala	-
86906		G		synonymous_variant	desmoplakin	Core gene	p.Ser223Ser	-
86993		C		synonymous_variant	desmoplakin	Core gene	p.Thr194Thr	-
87176		T		synonymous_variant	desmoplakin	Core gene	p.Pro133Pro	-
87218		T		synonymous_variant	desmoplakin	Core gene	p.Gln119Gln	-
87725		Т		synonymous_variant	dnapol	Core gene	p.Phe50Phe	-
87770		Α		synonymous_variant	dnapol	Core gene	p.Glu65Glu	-
87779		С		synonymous_variant	dnapol	Core gene	p.Cys68Cys	-
87929		Т		synonymous_variant	dnapol	Core gene	p.Ser118Ser	-
87932		Т	0.483608	synonymous_variant	dnapol	Core gene	p.Asp119Asp	-
87941	С	Т	0.482098	synonymous_variant	dnapol	Core gene	p.Asn122Asn	-
87944		Т	0.481776	synonymous_variant	dnapol	Core gene	p.Asn123Asn	-
87968	Т	С	0.493228	synonymous_variant	dnapol	Core gene	p.Leu131Leu	-
87980	С	Т	0.497352	synonymous_variant	dnapol	Core gene	p.Asn135Asn	-
88004	Α	G	0.495971	synonymous_variant	dnapol	Core gene	p.Leu143Leu	-
88034	Α	G	0.411305	synonymous_variant	dnapol	Core gene	p.Ser153Ser	-
88439	С	Т	0.480711	synonymous_variant	dnapol	Core gene	p.Gly288Gly	-
88484	С	Т	0.469078	synonymous_variant	dnapol	Core gene	p.Val303Val	-
88521	G	Α	0.47033	missense_variant	dnapol	Core gene	p.Ala316Thr	+
88547	Т	С	0.472372	synonymous_variant	dnapol	Core gene	p.lle324lle	-
88853	Т	С	0.477393	synonymous_variant	dnapol	Core gene	p.Leu426Leu	-
89000	G	Α	0.506622	synonymous_variant	dnapol	Core gene	p.Lys475Lys	-
89597	С	Т	0.15744	synonymous_variant	dnapol	Core gene	p.Asn674Asn	-
90149	Т	С	0.443978	synonymous_variant	dnapol	Core gene	p.Arg858Arg	-
90182	Т	С		synonymous_variant	dnapol	Core gene	p.Arg869Arg	-
90200		G		synonymous_variant	dnapol	Core gene	p.Ser875Ser	-
90308		Α		synonymous_variant	dnapol	Core gene	p.Gln911Gln	_

102787		T		stop_gained	sf110a	Non-core gene	p.Cys6*	-
102734		С		missense_variant	sf110a	Non-core gene	p.Tyr24Cys	+
102700		С		synonymous_variant	sf110a	Non-core gene	p.Thr35Thr	-
102678		G		missense_variant	sf110a	Non-core gene	p.Asp43His	+
102672		A		missense_variant	sf110a	Non-core gene	p.Asn45Tyr	_
102516		С		missense_variant	sf110a	Non-core gene	p.Cys97Gly	+
102503		G		missense_variant	sf110a	Non-core gene	p.Leu101Ser	+
102500		T		missense_variant	sf110a	Non-core gene	p.Met102Lys	+
102487		G		synonymous_variant	sf110a	Non-core gene	p.Ser106Ser	_
102152		G		missense_variant	sf110	Non-core gene	p.lle130Arg	+
101561		G		synonymous_variant	ac53-like	Core gene	p.Leu50Leu	_
100744		A		missense_variant	sf108	Non-core gene	p.lie i folie p.Asn158Lys	+
100744		T		synonymous_variant	sf108	Non-core gene	p.l 1048110 p.lle118lle	_
99955		G		synonymous_variant	vp1054	Core gene	p.Pro48Pro	-
99946		T		missense_variant	vp1054	Core gene	p.Asp51Glu	_
99781		С		synonymous variant	vp1054	Core gene	p.Lys229Lys p.Arg106Arg	_
99336		T		synonymous variant	vp1054	Core gene	p.Aig247Aig p.Lys229Lys	-
99358		G		synonymous variant	vp1054	Core gene	p.Giii234His p.Arg247Arg	_
99337		G		synonymous_variant missense_variant	vp1054	Non-core gene Core gene	p.Cys112Cys p.Gln254His	+
97928 97943		G C		missense_variant	sf102 sf102	Non-core gene	p.Glu117Asp p.Lys112Lys	-
97759		A		missense_variant	sf101	Non-core gene	p.Ala180Thr	+
97551		T		synonymous_variant	sf101	Non-core gene	p.Asn110Asn	-
97482		G		synonymous_variant	sf101	Non-core gene	p.Pro87Pro	-
97452		G		synonymous_variant	sf101	Non-core gene	p.Leu77Leu	-
96750		G		synonymous_variant	94k	Non-core gene	p.Arg675Arg	-
96489		G		synonymous_variant	94k	Non-core gene	p.Lys588Lys	-
96253		A		missense_variant	94k	Non-core gene	p.Val510lle	-
96228		T		synonymous_variant	94k	Non-core gene	p.Ser501Ser	<del>-</del>
96189		С		synonymous_variant	94k	Non-core gene	p.Asp488Asp	-
96169		T		synonymous_variant	94k	Non-core gene	p.Leu482Leu	-
96045		T		missense_variant	94k	Non-core gene	p.Met440lle	-
95161		C		missense_variant	94k	Non-core gene	p.Thr146Pro	+
95005		A		missense_variant	94k	Non-core gene	p.Asp94Asn	+
94572		A		upstream_gene_variant	-	-	-	-
94571		A		upstream_gene_variant	-	-	-	-
94355		C		missense_variant	fp25k	Non-core gene	p.Glu136Asp	-
93093		G		missense_variant	lef-9	Core gene	p.Asp266Ala	+
92166		G	0.507336	synonymous_variant	sf96	Non-core gene	p.Lys109Lys	-
92127		G	0.474592	synonymous_variant	sf96	Non-core gene	p.Lys96Lys	-
92106	Т	С	0.47182	synonymous_variant	sf96	Non-core gene	p.Tyr89Tyr	-
91314	G	Α	0.25933	synonymous_variant	sf94	Non-core gene	p.Leu30Leu	-
91281		Α	0.161316	synonymous_variant	sf94	Non-core gene	p.Leu41Leu	-
91007		Т	0.163277	synonymous_variant	sf93	Non-core gene	p.Arg37Arg	-
90815		Α	0.158104	synonymous_variant	sf93	Non-core gene	p.Asp101Asp	-
90812	A	G	0.157345	synonymous_variant	sf93	Non-core gene	p.Tyr102Tyr	-
90593	Α	G	0.242817	synonymous_variant	dnapol	Core gene	p.Val1006Val	-
90581	Т	Α	0.007464	missense_variant	dnapol	Core gene	p.Asp1002Glu	-
90572	G	Α	0.022077	synonymous_variant	dnapol	Core gene	p.Glu999Glu	-
				synonymous_variant	dnapol	Core gene	p.Asp988Asp	

104070		T		upstream_gene_variant	hidn	Non-core gene	n Asn187Thr	_
103894	Α	G	0.212861	missense_variant	iap-3	Non-core gene	p.Lys230Arg	-
104748		G		missense variant	bjdp	Non-core gene	p.Asn187Thr	_
104854	Α	G	0.29014	synonymous_variant	bjdp	Non-core gene	p.Leu152Leu	-
105125	Т	С		synonymous_variant	bjdp	_	p.Thr61Thr	-
105933	G	Т	0.005338	missense_variant	lef-8	Core gene	p.Leu202Phe	-
105960	С	Т	0.410035	synonymous_variant	lef-8	Core gene	p.lle211lle	-
106141	Т	С	0.263404	synonymous_variant	lef-8	Core gene	p.Leu272Leu	-
106155	G	Α	0.26391	synonymous_variant	lef-8	Core gene	p.Glu276Glu	-
106170	Т	С	0.262087	synonymous_variant	lef-8	Core gene	p.lle281lle	-
106782	С	Т	0.128402	synonymous_variant	lef-8	Core gene	p.Tyr485Tyr	-
107379	С	Т	0.037552	synonymous_variant	lef-8	Core gene	p.Tyr684Tyr	_
107754	G	Α	0.122189	synonymous_variant	lef-8	Core gene	p.Pro809Pro	-
107766	Т	С	0.121025	synonymous_variant	lef-8	Core gene	p.Phe813Phe	-
107859	Т	С	0.12613	synonymous_variant	lef-8	Core gene	p.Asn844Asn	-
108020	G	Α	0.125891	upstream_gene_variant	-	-	-	-
108556	Т	С	0.232266	missense_variant	odv-e66b	Non-core gene	p.Thr605Ala	+
108570	G	Α	0.232145	missense_variant	odv-e66b	Non-core gene	p.Ser600Leu	+
108664	Т	С	0.003707	missense_variant	odv-e66b	Non-core gene	p.Asn569Asp	+
108682	Α	С	0.171742	missense_variant	odv-e66b	Non-core gene	p.Tyr563Asp	+
108685	Т	Α	0.164589	missense_variant	odv-e66b	Non-core gene	p.Asn562Tyr	-
108695	Α	G	0.015003	synonymous_variant	odv-e66b	Non-core gene	p.Asn558Asn	-
108842	G	Α	0.218221	synonymous_variant	odv-e66b	Non-core gene	p.Val509Val	-
108920		G	0.213753	synonymous_variant	odv-e66b	Non-core gene	p.Phe483Phe	-
109069		G		missense_variant	odv-e66b	Non-core gene	p.Asn434His	+
110305		G	0.465129	synonymous_variant	odv-e66b	Non-core gene	p.Leu22Leu	-
110563		G		missense_variant	p47	Core gene	p.Ser56Gly	+
110763		Α		synonymous_variant	p47	Core gene	p.Pro122Pro	-
110764		Α		missense_variant	p47	Core gene	p.Asp123Asn	+
110835		Α		synonymous_variant	p47	Core gene	p.Leu146Leu	-
111003		Т		synonymous_variant	p47	Core gene	p.Asp202Asp	-
111033		A		synonymous_variant	p47	Core gene	p.Lys212Lys	-
111415		С		synonymous_variant	p47	Core gene	p.Leu340Leu	-
111422		С		missense_variant	p47	Core gene	p.Lys342Thr	+
111423		C		missense_variant	p47	Core gene	p.Lys342Asn	+
111513		T		synonymous_variant	p47	Core gene	p.Asp372Asp	-
111659		T		upstream_gene_variant	-	-	-	-
111662		T		upstream_gene_variant	-	-	-	-
111883		G		synonymous_variant	sf117	Non-core gene	p.Lys68Lys	-
112246		G		synonymous_variant	sf117	Non-core gene	p.Ala189Ala	<del>-</del>
112247		G		missense_variant	sf117	Non-core gene	p.Thr190Ala	+
4400-	А	G	0.480963	synonymous_variant	sf118	Non-core gene	p.Leu6Leu	-
112371	_		0 4					
112371 112444 112569		A T		missense_variant synonymous_variant	sf118 sf118	Non-core gene	p.Val31lle p.Tyr72Tyr	-

112870	Α	G	0.477472	missense_variant	sf118	Non-core gene	p.lle173Val	-
113282		T		synonymous_variant	adprase	Non-core gene	p.Gly103Gly	-
113321		G		synonymous_variant	adprase	Non-core gene	p.Pro116Pro	-
114144		T		missense_variant	39k	Non-core gene	p.Leu57Phe	_
114278		С		synonymous_variant	39k	Non-core gene	p.Asn101Asn	_
114670		С		missense_variant	39k	Non-core gene	p.lle232Thr	+
114940		Т		missense_variant	sf122	Non-core gene	p.Val3Phe	_
114990		T		synonymous_variant	sf122	Non-core gene	p.Pro19Pro	_
115083	С	Т		synonymous variant	sf122	Non-core gene	p.Gly50Gly	_
115119		Т		synonymous_variant	sf122	Non-core gene	p.Asp62Asp	_
115152		С		synonymous_variant	sf122	Non-core gene	p.Phe73Phe	-
115153	С	Α		missense_variant	sf122	Non-core gene	p.Leu74lle	-
115167		G		synonymous_variant	sf122	Non-core gene	p.Glu78Glu	-
115218		Т		synonymous_variant	sf122	Non-core gene	p.Tyr95Tyr	_
115222		A		missense variant	sf122	Non-core gene	p.Leu97Met	_
115278		T		upstream gene variant	-	-	-	-
115287		T		upstream gene variant	-	-	-	-
115540		A		missense_variant	v-ubi	Non-core gene	p.Thr77lle	+
115545		Α		synonymous_variant	v-ubi	Non-core gene	p.Gly75Gly	-
115835	С	G		missense_variant	sf125	Non-core gene	p.Asn8Lys	+
116432	С	Т		upstream_gene_variant	-	-	-	-
116528	Т	С		upstream_gene_variant	-	-	_	-
116576	Α	С		upstream_gene_variant	-	-	_	-
116585	Т	Α		upstream_gene_variant	-	-	_	-
116591	С	Α		upstream_gene_variant	-	-	_	-
116604	Α	Т		upstream_gene_variant	-	-	-	-
116700	Α	G		upstream_gene_variant	-	-	-	-
116797	G	Α		missense_variant	sf126	Non-core gene	p.Pro122Leu	+
116800	Α	G	0.29909	missense_variant	sf126	Non-core gene	p.Leu121Pro	+
117899	G	Α	0.08841	synonymous_variant	dbp	Non-core gene	p.Ala215Ala	-
118139	Α	G	0.109541	synonymous_variant	dbp	Non-core gene	p.Gln295Gln	-
118428	С	Т	0.454993	synonymous_variant	lef-6	Non-core gene	p.Ser55Ser	-
118458	С	Т	0.457585	synonymous_variant	lef-6	Non-core gene	p.Gly65Gly	-
118490	Α	G	0.464437	missense_variant	lef-6	Non-core gene	p.Lys76Arg	-
118501	С	Т	0.484682	missense_variant	lef-6	Non-core gene	p.His80Tyr	+
118506	Т	С	0.457517	synonymous_variant	lef-6	Non-core gene	p.His81His	-
118518	С	Т	0.41684	synonymous_variant	lef-6	Non-core gene	p.His85His	-
118519	С	Т	0.4195	missense_variant	lef-6	Non-core gene	p.His86Tyr	+
118522	С	Т	0.012227	missense_variant	lef-6	Non-core gene	p.His87Tyr	+
118531	Α	С		synonymous_variant	lef-6	Non-core gene	p.Arg90Arg	-
118586	С	Т	0.393074	missense_variant	lef-6	Non-core gene	p.Ser108Leu	+
119616	G	Α	0.467575	synonymous_variant	p26b	Non-core gene	p.Glu165Glu	-
119679	С	Т	0.47263	synonymous_variant	p26b	Non-core gene	p.lle186lle	-
119684	Α	Т	0.471695	missense_variant	p26b	Non-core gene	p.Tyr188Phe	+
120094	С	Т	0.414834	synonymous_variant	p10	Non-core gene	p.Asn49Asn	-
120127	Α	G	0.410182	synonymous_variant	p10	Non-core gene	p.Leu60Leu	-
120175	Т	С	0.401561	synonymous_variant	p10	Non-core gene	p.Asn76Asn	-
120190	Α	G	0.39588	synonymous_variant	p10	Non-core gene	p.Leu81Leu	-
120369	G	Α	0.401701	synonymous_variant	sf133	Non-core gene	p.Thr288Thr	-
120842	С	Т	0.398583	missense_variant	sf133	Non-core gene	p.Glu131Lys	+

404000	<b>-</b>	Δ	0.000454		-4400	N	T75Db -	
121009		A		missense_variant	sf133	Non-core gene	p.Tyr75Phe	+
121023		G		synonymous_variant	sf133	Non-core gene	p.Asn70Asn	-
121026		A		synonymous_variant	sf133	Non-core gene	p.Asp69Asp	-
121077		G		synonymous_variant	sf133	Non-core gene	p.lle52lle	-
121122		A		synonymous_variant	sf133	Non-core gene	p.His37His	-
121466		T		missense_variant	pif-0	Core gene	p.Ala576Thr	+
121476		T		synonymous_variant	pif-0	Core gene	p.Leu572Leu	-
121512		T		synonymous_variant	pif-0	Core gene	p.Leu560Leu	-
121581		T		synonymous_variant	pif-0	Core gene	p.Val537Val	-
121676		A		synonymous_variant	pif-0	Core gene	p.Leu506Leu	-
121782		G		synonymous_variant	pif-0	Core gene	p.Ala470Ala	-
121887		G		synonymous_variant	pif-0	Core gene	p.lle435lle	-
121949		C		missense_variant	pif-0	Core gene	p.lle415Val	-
122220		T		synonymous_variant	pif-0	Core gene	p.Ala324Ala	-
122325		G		synonymous_variant	pif-0	Core gene	p.Leu289Leu	-
122369		G		missense_variant	pif-0	Core gene	p.Asp275His	+
122375		T		missense_variant	pif-0	Core gene	p.Asp273Asn	+
122432		G		missense_variant	pif-0	Core gene	p.Thr254Pro	+
122457		Т		synonymous_variant	pif-0	Core gene	p.Pro245Pro	-
123134		G	0.144336	missense_variant	pif-0	Core gene	p.Tyr20His	+
123217		Т		upstream_gene_variant	-	-	-	-
123249		Т	0.19248	synonymous_variant	sf135	Non-core gene	p.Phe2Phe	-
123363		Α		synonymous_variant	sf135	Non-core gene	p.Ser40Ser	-
123372	G	С	0.414429	missense_variant	sf135	Non-core gene	p.Glu43Asp	-
123889	G	Α	0.042645	synonymous_variant	ie-1	Non-core gene	p.Leu592Leu	-
123914	Α	G	0.042813	synonymous_variant	ie-1	Non-core gene	p.Thr583Thr	-
124154	Т	С	0.043318	synonymous_variant	ie-1	Non-core gene	p.Lys503Lys	-
124268	G	Α	0.04617	synonymous_variant	ie-1	Non-core gene	p.Phe465Phe	-
125148	Т	С	0.048989	missense_variant	ie-1	Non-core gene	p.Asn172Ser	-
125279	Т	С	0.049788	synonymous_variant	ie-1	Non-core gene	p.Ser128Ser	-
125285	Т	С	0.05012	synonymous_variant	ie-1	Non-core gene	p.Ser126Ser	-
125505	Т	G	0.003589	missense_variant	ie-1	Non-core gene	p.His53Pro	+
125550	Т	G	0.001727	missense_variant	ie-1	Non-core gene	p.Lys38Thr	+
125621	С	Т	0.038587	synonymous_variant	ie-1	Non-core gene	p.Leu14Leu	-
125881	Α	G	0.072167	missense_variant	sf137	Non-core gene	p.Arg64Gly	+
126222	Т	G	0.43673	synonymous_variant	sf137	Non-core gene	p.Ser177Ser	-
126371	С	Т	0.47539	upstream_gene_variant	-	-	-	-
128085	G	Α	0.377424	synonymous_variant	p49	Core gene	p.Phe360Phe	-
128963	G	Α	0.028338	synonymous_variant	p49	Core gene	p.Leu68Leu	-
129075	Α	G	0.049325	synonymous_variant	p49	Core gene	p.Asp30Asp	-
129200	С	Т	0.050061	synonymous_variant	ie-0	Non-core gene	p.Gln230Gln	-
129448	Т	G	0.004963	missense_variant	ie-0	Non-core gene	p.Lys148Gln	+
129449	Т	G	0.005914	missense_variant	ie-0	Non-core gene	p.Glu147Asp	-
129497	G	Α	0.052867	synonymous_variant	ie-0	Non-core gene	p.lle131lle	-
129647	Т	С	0.25323	synonymous_variant	ie-0	Non-core gene	p.Leu81Leu	-
130234	С	Т	0.11643	synonymous_variant	rr-1	Non-core gene	p.Thr753Thr	-
130318	Α	G	0.114966	synonymous_variant	rr-1	Non-core gene	p.Asn725Asn	-
131959	С	Т	0.157303	synonymous_variant	rr-1	Non-core gene	p.Glu178Glu	-
132102	G	Т	0.003654	missense_variant	rr-1	Non-core gene	p.Pro131Thr	+
132117	С	Т	0.148816	missense_variant	rr-1	Non-core gene	p.Glu126Lys	+

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132223	С	Т	0.153576	synonymous_variant	rr-1	Non-core gene	p.Gln90Gln	-
132242	С	Т	0.155009	missense_variant	rr-1	Non-core gene	p.Ser84Asn	-
132322	G	С	0.152427	missense_variant	rr-1	Non-core gene	p.Asn57Lys	+
132599	Т	G	0.003296	upstream_gene_variant	-	-	-	-
132607	Т	G	0.0048	upstream_gene_variant	-	-	-	-