

## Additional file 10: Table S4

### Most frequent mutant alleles generated by BE3-gMH and Cas9-gMH treatment in hPcsk9-KI mice.

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCCATGGAAACCTGGAGCGAATTATCC	639 466	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	70,895
ATTGAGGAAGACTCTTGTCTTCGCCAG—GCATCCCATGGAAACCTGGAGCGAATTATCC	30 886	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Ala Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	3,424
ATTGAGGAAGACTCTTGTCTTCGCCAG—CATCCCATGGAAACCTGGAGCGAATTATCC	28 789	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Thr Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	3,192
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>GCATCCCATGGAAACCTGGAGCGAATTATCC</b>	18 394	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Lys His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	2,039
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>GCATCCCATGGAAACCTGGAGCGAATTATCC</b>	13 238	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Arg His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	1,468
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>TGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	9 361	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Met His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	1,038
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	9 260	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift deletion	Frameshift Mutation	1,027
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>GAACCTGGAGCGAATTATCC</b>	4 404	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Asn Leu Glu Arg Ile Ile	Inframe deletion	Inframe Mutation	0,488

### Cas9-gMH (#2\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCCATGGAAACCTGGAGCGAATTATCC	405 587	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	74,565
ATTGAGGAAGACTCTTGTCTTCGCCAG—CATCCCATGGAAACCTGGAGCGAATTATCC	16 414	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Thr Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	3,018
ATTGAGGAAGACTCTTGTCTTCGCCAG—GCATCCCATGGAAACCTGGAGCGAATTATCC	14 968	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Ala Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift insertion	Frameshift Mutation	2,752
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	7 914	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Lys His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	1,455
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>GCATCCCATGGAAACCTGGAGCGAATTATCC</b>	7 115	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Arg His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	1,308
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	7 088	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift deletion	Frameshift Mutation	1,303
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>TGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	4 151	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Met His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	0,763
ATTGAGGAAGACTCTTGTCTTCGCCAG— <b>ATCCCATGGAAACCTGGAGCGAATTATCC</b>	2 263	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ile Pro Trp Asn Leu Glu Arg Ile Ile	Inframe deletion	Inframe Mutation	0,416

### Cas9-gMH (#3\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCCCATGGAAACCTGGAGCGAATTATCC	241 998	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	86,277
GAGGAAGACTCTTGTCTTCGCCAG—CATCCCATGGAAACCTGGAGCGAATTATCC	2 771	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Thr Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	0,988
GAGGAAGACTCTTGTCTTCGCCAG—GCATCCCATGGAAACCTGGAGCGAATTATCC	2 533	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Ala Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	0,903
GAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	1 658	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Lys His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	0,591
GAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	1 199	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift deletion	Frameshift Mutation	0,427
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>ATGGAAACCTGGAGCGAATTATCC</b>	1 092	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Ile Gln Trp Asn Leu Glu Arg Ile Ile</b>	Substitution, Pro>Gln	Missense Mutation	0,389
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>ATGGAAACCTGGAGCGAATTATCC</b>	1 075	Glu Glu Asp Ser Phe Val Phe Ala <b>Lys Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile</b>	Substitution, Gln>Lys	Missense Mutation	0,383
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>GCATCCCATGGAAACCTGGAGCGAATTATCC</b>	1 071	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Arg His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	0,382
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>TAGCGAATTATCC</b>	874	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu <b>Stop</b>	Substitution, Glu>Stop	Nonsense Mutation, Knockout	0,312

### Cas9-gMH (#4\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCCCATGGAAACCTGGAGCGAATTATCC	352 427	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	83,519
GAGGAAGACTCTTGTCTTCGCCAG—CATCCCATGGAAACCTGGAGCGAATTATCC	8 972	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Thr Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	2,126
GAGGAAGACTCTTGTCTTCGCCAG—GCATCCCATGGAAACCTGGAGCGAATTATCC	7 546	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Ala Ser His Gly Thr Trp Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	1,788
GAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	4 135	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Lys His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	0,980
GAGGAAGACTCTTGTCTTCGCCAG— <b>AGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	2 889	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift deletion	Frameshift Mutation	0,685
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>ATGGAAACCTGGAGCGAATTATCC</b>	2 056	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Arg His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	0,487
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>TGCATCCCATGGAAACCTGGAGCGAATTATCC</b>	1 510	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Met His Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift insertion	Frameshift Mutation	0,358
GAGGAAGACTCTTGTCTTCGCCAGAGCATCCA— <b>ATGGAAACCTGGAGCGAATTATCC</b>	979	Glu Glu Asp Ser Phe Val Phe Ala Gln Ile Pro Trp Asn Leu Glu Arg Ile Ile	Inframe deletion	Inframe Mutation	0,232
GAGGAAGACTCTTGTCTTCGCCAG— <b>CCCCATGGAAACCTGGAGCGAATTATCC</b>	796	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>His Gly Thr Ser Glu Leu Ser</b>	Frameshift deletion	Frameshift Mutation	0,189
GAGGAAGACTCTTGTCTTCGCCAG— <b>ATCCCATGGAAACCTGGAGCGAATTATCC</b>	642	Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asp Pro Met Glu Pro Gly Ala Asn Tyr</b>	Frameshift deletion	Frameshift Mutation	0,152

## Cas9-gMH (#5\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCCTTGCTTCGCCAGAGCATCCCATGGAACCTGGAGCGAATTATCC	141 381	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	61,838
GAGGAAGACTCCTTGCTTCGCCAGA-CATCCCATGGAACCTGGAGCGAATTATCC	13 811	Glu Glu Asp Ser Phe Val Phe Ala Gln Thr Ser His Gly Thr Trp Ser Glu Leu Ser	Frameshift deletion	Frameshift Mutation	6,041
GAGGAAGACTCCTTGCTTCGCCAG-GCATCCCATGGAACCTGGAGCGAATTATCC	10 038	Glu Glu Asp Ser Phe Val Phe Ala Gln Ala Ser His Gly Thr Trp Ser Glu Leu Ser	Frameshift deletion	Frameshift Mutation	4,390
GAGGAAGACTCCTTGCTTCGCCAGA-▲GATCCCATGGAACCTGGAGCGAATTATCC	5 480	Glu Glu Asp Ser Phe Val Phe Ala Gln Lys His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift insertion	Frameshift Mutation	2,397
GAGGAAGACTCCTTGCTTCGCCAGA---AGCATCCCATGGAACCTGGAGCGAATTATCC	4 496	Glu Glu Asp Ser Phe Val Phe Ala Gln His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift deletion	Frameshift Mutation	1,966
GAGGAAGACTCCTTGCTTCGCCAGAGC-CATCCCATGGAACCTGGAGCGAATTATCC	3 242	Glu Glu Asp Ser Phe Val Phe Ala Gln Arg His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift insertion	Frameshift Mutation	1,418
GAGGAAGACTCCTTGCTTCGCCAGA-TGCATCCCATGGAACCTGGAGCGAATTATCC	2 346	Glu Glu Asp Ser Phe Val Phe Ala Gln Met His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift insertion	Frameshift Mutation	1,026
GAGGAAGACTCCTTGCTTCGCCAGA---ATCCCATGGAACCTGGAGCGAATTATCC	1 231	Glu Glu Asp Ser Phe Val Phe Ala Gln Ile Pro Trp Asn Leu Glu Arg Ile Ile	Inframe deletion	Inframe Mutation	0,538
GAGGAAGACTCCTTGCTTCGCCAGA---CCCCATGGAACCTGGAGCGAATTATCC	1 042	Glu Glu Asp Ser Phe Val Phe Ala His Gly Thr Trp Ser Glu Leu Ser	Frameshift deletion	Frameshift Mutation	0,456
GAGGAAGACTCCTTGCTTCGCCAGA---ATCCCATGGAACCTGGAGCGAATTATCC	906	Glu Glu Asp Ser Phe Val Phe Ala Gln Asn Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift deletion	Frameshift Mutation	0,396

## Cas9-gMH (#6\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCCTTGCTTCGCCAGAGCATCCCATGGAACCTGGAGCGAATTATCC	158 653	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	74,878
GAGGAAGACTCCTTGCTTCGCCAGA-CATCCCATGGAACCTGGAGCGAATTATCC	6 436	Glu Glu Asp Ser Phe Val Phe Ala Gln Thr Ser His Gly Thr Trp Ser Glu Leu Ser	Frameshift deletion	Frameshift Mutation	3,038
GAGGAAGACTCCTTGCTTCGCCAG-GCATCCCATGGAACCTGGAGCGAATTATCC	6 042	Glu Glu Asp Ser Phe Val Phe Ala Gln Ala Ser His Gly Thr Trp Ser Glu Leu Ser	Frameshift deletion	Frameshift Mutation	2,852
GAGGAAGACTCCTTGCTTCGCCAGA-▲GATCCCATGGAACCTGGAGCGAATTATCC	2 594	Glu Glu Asp Ser Phe Val Phe Ala Gln Lys His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift insertion	Frameshift Mutation	1,224
GAGGAAGACTCCTTGCTTCGCCAGC---AGCATCCCATGGAACCTGGAGCGAATTATCC	2 290	Glu Glu Asp Ser Phe Val Phe Ala Gln His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift deletion	Frameshift Mutation	1,081
GAGGAAGACTCCTTGCTTCGCCAGAGC-CATCCCATGGAACCTGGAGCGAATTATCC	1 703	Glu Glu Asp Ser Phe Val Phe Ala Gln Arg His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift insertion	Frameshift Mutation	0,804
GAGGAAGACTCCTTGCTTCGCCAGA-TGCATCCCATGGAACCTGGAGCGAATTATCC	851	Glu Glu Asp Ser Phe Val Phe Ala Gln Met His Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift insertion	Frameshift Mutation	0,402
GAGGAAGACTCCTTGCTTCGCCAGA-▲AGACATCCCATGGAACCTGGAGCGAATTATCC	801	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Gin Trp Asn Leu Glu Arg Ile Ile	Substitution, Pro>Gln	Missense Mutation	0,378
GAGGAAGACTCCTTGCTTCGCCAGA-▲AGACATCCCATGGAACCTGGAGCGAATTATCC	693	Glu Glu Asp Ser Phe Val Phe Ala Lys Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>Lys	Missense Mutation	0,327
GAGGAAGACTCCTTGCTTCGCCAGA---ATCCCATGGAACCTGGAGCGAATTATCC	683	Glu Glu Asp Ser Phe Val Phe Ala Gln Asn Pro Met Glu Pro Gly Ala Asn Tyr	Frameshift deletion	Frameshift Mutation	0,322

## Cas9-gMH (#1\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	154 977	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	68.920
TACATCGAGGGAGGACTCTCTGTCTTGGCCAG—GCATCCCGTGGAACTGGAGCGGATTACCCCTC	15 725	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	6,993
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—CATCCCGTGGAACTGGAGCGGATTACCCCTC	10 529	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Thr Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	4,682
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—AGCATCCCGTGGAACTGGAGCGGATTACCCCTC	5 519	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	2,454
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	5 062	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Lys His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	2,251
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	2 467	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Arg His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	1,097
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGAT <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	1 038	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Met His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,806
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—ATCCCGTGGAACTCTGGAGCGGATTACCCCTC	981	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala <b>Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	0,462
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	885	Tyr Ile Glu Glu Asp Ser Ser Val <b>Leu His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	0,436
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC			Frameshift deletion	Frameshift Mutation	0,394

## Cas9-gMH (#2\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTCTGGAGCGGATTACCCCTC	275 055	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	73.946
TACATCGAGGGAGGACTCTCTGTCTTGGCCAG—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	21 750	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	5,847
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—CATCCCGTGGAACTCTGGAGCGGATTACCCCTC	17 804	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Thr Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	4,786
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	8 315	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Lys His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	2,235
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGAT <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	5 972	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	1,606
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	2 587	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Met His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,695
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	2241	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Arg His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,602
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	1 806	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Aia Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	0,486
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—ATCCCGTGGAACTCTGGAGCGGATTACCCCTC	1 587	Tyr Ile Glu Glu Asp Ser Ser Val <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Inframe deletion	Inframe Mutation	0,427
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	1 344	Tyr Ile Glu Glu Asp Ser Ser Val <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	0,361

## Cas9-gMH (#3\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTCTGGAGCGGATTACCCCTC	263 766	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	89.767
TACATCGAGGGAGGACTCTCTGTCTTGGCCAG—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	4 852	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	1,651
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—CATCCCGTGGAACTCTGGAGCGGATTACCCCTC	3 136	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Thr Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	1,067
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—AGCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	1 643	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	0,559
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	1418	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Lys His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,483
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACCTCCGGAACTCTGGAGCGGATTACCCCTC <b>ACTC</b>	672	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>Thr</b>	Substitution, Pro>Thr	Mis sense Mutation	0,229
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> GTGGAACTCTGGAGCGGATTACCCCTC	651	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Thr <b>Pro</b>	Substitution, Pro>Gln	Mis sense Mutation	0,222
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> GTGGAACTCTGGAGCGGATTACCCCTC <b>ACTC</b>	598	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>His</b>	Substitution, Pro>His	Mis sense Mutation	0,204
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> AGAGCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	494	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala <b>Lys Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro</b>	Substitution, Gln>Lys	Mis sense Mutation	0,168
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA <b>▲</b> GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	486	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Arg His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,165

## Cas9-gMH (#4\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTCTGGAGCGGATTACCCCTC	288 062	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	84.576
TACATCGAGGGAGGACTCTCTGTCTTGGCCAG—GCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	9 185	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	2,697
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—CATCCCGTGGAACTCTGGAGCGGATTACCCCTC	6 894	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Thr Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	2,024
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGA—AGCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	2 485	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Lys His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,730
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> GTGGAACTCTGGAGCGGATTACCCCTC	2407	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>Thr</b>	Substitution, Pro>Thr	Mis sense Mutation	0,707
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> GTGGAACTCTGGAGCGGATTACCCCTC <b>ACTC</b>	1 040	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>His</b>	Substitution, Pro>Gln	Mis sense Mutation	0,305
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> GTGGAACTCTGGAGCGGATTACCCCTC <b>ACTC</b>	937	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Thr <b>Pro</b>	Substitution, Pro>His	Mis sense Mutation	0,275
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> AGAGCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	873	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>His</b>	Substitution, Gln>Lys	Mis sense Mutation	0,256
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> AGAGCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	852	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Met His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,250
TACATCGAGGGAGGACTCTCTGTCTTGGCCAGACGATCC <b>▲</b> AGAGCATCCCGTGGAACTCTGGAGCGGATTACCCCTC	816	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala <b>Lys Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro</b>	Substitution, Gln>Lys	Mis sense Mutation	0,240

## Cas9-gMH (#5\_hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAAACCTGGAGCGGATTACCCCTC	227 333	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	68,548
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	22 352	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	6,740
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-CATCCCGTGGAAACCTGGAGCGGATTACCCCTC	17 805	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Thr Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	5,369
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA--AGCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	7 095	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	2,139
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA▲CATCCCGTGGAAACCTGGAGCGGATTACCCCTC	6796	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Lys His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	2,049
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA●CATCCCGTGGAAACCTGGAGCGGATTACCCCTC	2 100	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Arg His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,633
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA●GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	1 775	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Met His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,535
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-----GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	923	Tyr Ile Glu Glu Asp Ser Ser Val <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	0,278
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-----ATCCCGTGGAAACCTGGAGCGGATTACCCCTC	795	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Inframe deletion	Inframe Mutation	0,240
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA●GCATCCCGTGGAAACCTGGAGCGGATTACCA▲CTC	734	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>Thr</b>	Substitution, Pro>Thr	Missense Mutation	0,221

## Cas9-gMH (#6\_hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAAACCTGGAGCGGATTACCCCTC	313 218	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	80,670
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	17 531	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	4,515
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-CATCCCGTGGAAACCTGGAGCGGATTACCCCTC	14 899	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Thr Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	3,837
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA▲GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	5 471	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Lys His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	1,409
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA--AGCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	2828	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift deletion	Frameshift Mutation	0,728
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA●GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	1 024	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Arg His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,264
TACATCGAGGAGGACTCTCTGTCTTGGCCAGA-----GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	906	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln <b>Met His Pro Val Glu Pro Gly Ala Asp Tyr Pro</b>	Frameshift insertion	Frameshift Mutation	0,233
TACATCGAGGAGGACT-----CTC	780	Tyr Ile Glu Glu Asp Ser	Frameshift deletion	Frameshift Mutation	0,201
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAAACCTGGAGCGGATTACCA▲CTC	673	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>Thr</b>	Substitution, Pro>Thr	Missense Mutation	0,173
-----GCATCCCGTGGAAACCTGGAGCGGATTACCCCTC	619	<b>Ala Ser Arg Gly Thr Trp Ser Gly Leu Pro Leu</b>	Frameshift deletion	Frameshift Mutation	0,159

BE3-gMH (#1\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCATGGAACCTGGAGCAATTATCC	666 611	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	94,466
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AACTTGAGGCCATTATCC	10 600	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	1,502
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>G</b> AACTTGAGGCCATTATCC	7 676	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	1,088
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>T</b> AACTTGAGGCCATTATCC	1 377	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,195
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AACTTGAGGCCATTATCC	1 349	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Leu	Missense Mutation	0,191
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>C</b> AACTTGAGGCCATTATCC	666	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,094
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>T</b> AACTTGAGGCCATTATCC	482	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Tyr</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Tyr	Missense Mutation	0,068
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>G</b> AACTTGAGGCCATTATCC	444	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,063
ATTGAGGAAGACTCTTGTCTTC <b>A</b> AACTTGAGCATCCCATGGAACCTGGAGCAATTATCC	436	Ile Glu Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Missense Mutation	0,062
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>G</b> AACTTGAGGCCATTATCC	286	Ile Glu Glu Asp Ser Phe Val Phe Ala <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Missense Mutation	0,043

BE3-gMH (#2\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCATGGAACCTGGACCGAATTATCC	598 065	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	93,25%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AAACCTGGACCGAATTATCC	14 243	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	2,22%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AAACCTGGACCGAATTATCC	9 307	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	1,45%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>T</b> AAACCTGGACCGAATTATCC	1 897	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Leu	Missense Mutation	0,29%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>G</b> AAACCTGGACCGAATTATCC	955	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,14%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>C</b> AAACCTGGACCGAATTATCC	763	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,11%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> CAACCTGGACCGAATTATCC	691	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Tyr</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Tyr	Missense Mutation	0,108%
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AAACCTGGACCGAATTATCC	300	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,047%
ATTGAGGAAGACTCTTGTCTTC <b>A</b> CCAGAGCATCCCATGGAACCTGGACCGAATTATCC	288	Ile Glu Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Missense Mutation	0,045%
ATTGAGGAAGACTCTTGTCTTCGCCAG <b>A</b> CACTCCATGGAAACCTGGACCGAATTATCC	243	Ile Glu Glu Asp Ser Phe Val Phe <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Missense Mutation	0,038%

BE3-gMH (#3\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	519 932	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	88,400
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	23 054	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,920
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	19 038	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,237
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	2 975	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b>	Substitution, Trp>Leu	Missense Mutation	0,506
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	1 826	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b>	Substitution, Trp>Cys	Missense Mutation	0,310
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	1 346	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Tyr</b>	Substitution, Trp>Tyr	Missense Mutation	0,229
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	1 083	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b>	Substitution, Trp>Cys	Missense Mutation	0,184
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	689	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Tyr</b>	Substitution, Trp>Tyr	Missense Mutation	0,117
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	610	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,104
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCGATGGAACTTGGAGCGAATTATCC	537	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,099

BE3-gMH (#4\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCATGGAACCTGGAGCGAATTATCC	253 381	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	89,700
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AAACCTGGAGCGAATTATCC	8 799	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,115
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>G</b> AAACCTGGAGCGAATTATCC	8 089	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	2,864
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>T</b> AAACCTGGAGCGAATTATCC	1 385	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b>	Substitution, Trp>Cys	Missense Mutation	0,490
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AAACCTGGAGCGAATTATCC	1 265	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b>	Substitution, Trp>Leu	Missense Mutation	0,448
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>C</b> AAACCTGGAGCGAATTATCC	500	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Tyr</b>	Substitution, Trp>Tyr	Missense Mutation	0,177
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>T</b> AAACCTGGAGCGAATTATCC	363	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Tyr</b>	Substitution, Trp>Tyr	Missense Mutation	0,125
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>G</b> AAACCTGGAGCGAATTATCC	346	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b>	Substitution, Trp>Cys	Missense Mutation	0,122
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>A</b> AAACCTGGAGCGAATTATCC	199	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,070
ATTGAGGAAGACTCTTGTCTTCGCCAGAGCATCCCAT <b>-A</b> AAACCTGGAGCGAATTATCC	166	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Frameshift deletion	Frameshift Mutation, Knockout	0,059

## BE3-gMH (#5\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCCTTTGCTTCGCCAGAGCATCCATGGAACTGGAGCGAATTATCC	143 886	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	89.664
7 3 517	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	2,158	
2 165	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	1,328	
780	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,479	
626	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Ile	Substitution, Pro>Gln	Missense Mutation	0,384	
604	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Leu	Missense Mutation	0,371	
569	Glu Glu Asp Ser Phe Val Phe Ala <b>Lys</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>Lys	Missense Mutation	0,349	
444	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu <b>Stop</b>	Substitution, Glu>Stop	Nonsense Mutation, Knockout	0,272	
397	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Leu</b> Ile Ile	Substitution, Arg>Leu	Missense Mutation	0,244	
396	Glu Glu Asp Ser Phe Val Phe Ala <b>His</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>His	Missense Mutation	0,243	

## BE3-gMH (#6\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCCTTTGCTTCGCCAGAGCATCCATGGAACTGGAGCGAATTATCC	171 461	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	88.877
7 6 96	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,989	
4 243	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	2,199	
970	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Leu	Missense Mutation	0,503	
915	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,474	
616	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Ile	Substitution, Pro>Gln	Missense Mutation	0,319	
581	Glu Glu Asp Ser Phe Val Phe Ala <b>Lys</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>Lys	Missense Mutation	0,301	
501	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu <b>Stop</b>	Substitution, Glu>Stop	Nonsense Mutation, Knockout	0,260	
390	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Leu</b> Ile Ile	Substitution, Arg>Leu	Missense Mutation	0,202	
386	Glu Glu Asp Ser Phe Val Phe Ala <b>His</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>His	Missense Mutation	0,200	

## BE3-gMH (#7\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCCTTTGCTTCGCCAGAGCATCCATGGAACTGGAGCGAATTATCC	169 754	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	85.585
11 5 599	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	5,848	
7 422	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,742	
1 591	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Leu	Missense Mutation	0,802	
1 417	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,714	
654	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Ile	Substitution, Pro>Gln	Missense Mutation	0,330	
592	Glu Glu Asp Ser Phe Val Phe Ala <b>Lys</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>Lys	Missense Mutation	0,298	
500	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu <b>Stop</b>	Substitution, Glu>Stop	Nonsense Mutation, Knockout	0,252	
428	Glu Glu Asp Ser Phe Val Phe Ala <b>His</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>His	Missense Mutation	0,216	
428	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Leu</b> Ile Ile	Substitution, Arg>Leu	Missense Mutation	0,216	

## BE3-MH (#8\_mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
GAGGAAGACTCCTTTGCTTCGCCAGAGCATCCATGGAACTGGAGCGAATTATCC	182 283	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	88.134
6 364	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,077	
4 316	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	2,087	
1 052	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Leu	Missense Mutation	0,509	
861	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Ile	Substitution, Trp>Cys	Missense Mutation	0,416	
491	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Ile	Substitution, Pro>Gln	Missense Mutation	0,237	
430	Glu Glu Asp Ser Phe Val Phe Ala <b>Lys</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>Lys	Missense Mutation	0,208	
370	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu <b>Stop</b>	Substitution, Glu>Stop	Nonsense Mutation, Knockout	0,179	
340	Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Leu</b> Ile Ile	Substitution, Arg>Leu	Missense Mutation	0,164	
282	Glu Glu Asp Ser Phe Val Phe Ala <b>His</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Gln>His	Missense Mutation	0,136	

## BE3-gMH (#1\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGGAGACTCTCTGTTGCCAGACCATCCGTGGAACCTGGAGCGGATTACCCCTC	277 920	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	88.89
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	16 328	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	5.222
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	4 763	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	1.523
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	807	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Leu	Missense Mutation	0.258
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	454	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.145
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	453	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Trys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Trys	Missense Mutation	0.145
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	406	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.130
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	394	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0.126
TACATCGAGGGAGACTCTCTGCTTGGCCAGACCATCCGTGAAACCTGGAGCGGATTACCCCTC	307	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.098
TACATCGAGGGAGACTCTCTGCTTGGCCCA-----GAACCTGGAGCGGATTACCCCTC	219	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Asn Leu Glu Arg Ile Thr Pro	Inframe deletion	Inframe Mutation	0.070

## BE3-gMH (#2\_hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	326 812	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	85,594
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	24 429	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	6,398
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	8 446	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	2,212
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	1 592	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,417
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	1 067	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,279
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	971	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Frameshift deletion	Frameshift Mutation, Knockout	0,254
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	803	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0,210
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	569	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Lys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Lys	Missense Mutation	0,149
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	511	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Frameshift deletion	Frameshift Mutation, Knockout	0,134
TACATCGAGGGAGCTCTCTGTTGCCAGACATCCGTGAACTTGGAGCGATTACCCCTC	485	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,127

### BE3-gMH (#3\_hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGAACTCTGGAGCGGATTACCCCTC	294 948	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	78,889
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGCGGATTACCCCTC	36 172	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	9,675
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	12 770	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,416
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	3 201	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Leu	Missense Mutation	0,856
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	1 728	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0,462
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	1 208	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,323
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	702	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,188
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	663	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Frameshift deletion	Frameshift Mutation, Knockout	0,177
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	509	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Tyr</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Tyr	Missense Mutation	0,136
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCGGTAAACCTGGAGGGATTACCCCTC	499	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser <b>Gly</b> Thr Trp Ser <b>Gly</b> Leu Pro Leu	Frameshift deletion	Frameshift Mutation	0,133

BE3-gMH (#4\_hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACCTCCGGAACTCTGGAGCGGATTACCCCTC	249 720	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	75,923
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACCTCCGGTAACCTGGAGCGATTACCCCTC	40 347	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	12,267
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	11 246	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3,419
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	4 012	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Leu	Missense Mutation	1,220
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	1 830	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,556
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	902	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Frameshift deletion	Frameshift Mutation, Knockout	0,274
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	848	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0,258
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	847	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,258
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	567	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,172
TACATCGAGGAGGACTCTCTGTCTTGCCTGGACGACATCCGGTAACCTGGAGCGGATTACCCCTC	550	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0,167

## BE3-gMH (#5\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	166 491	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	74.868
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>A</b> ACCTGAGCGGATTACCCCTC	11 391	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	5.122
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>G</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	4 289	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	1.929
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>C</b> TC	1 630	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr <b>Thr</b>	Substitution, Pro>Thr	Missense Mutation	0.733
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1593	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Thr Pro	Substitution, Pro>Gln	Missense Mutation	0.716
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1 513	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu <b>Stop</b>	Substitution, Glu>Stop	Nonsense Mutation, Knockout	0.680
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>G</b> <b>A</b> CTGGAGCGGATTACCCCTC	1 410	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0.634
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCATC	1 337	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile <b>His</b>	Substitution, Pro>His	Missense Mutation	0.601
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1 249	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala <b>Lys</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Substitution, Gln>Lys	Missense Mutation	0.562
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1 171	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala <b>His</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Substitution, Gln>His	Missense Mutation	0.527

## BE3-gMH (#6\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	222 167	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	74.951
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>A</b> ACCTGAGCGGATTACCCCTC	30 559	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	10.309
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>G</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	9 416	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3.177
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>T</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	1 604	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Leu	Missense Mutation	0.541
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>C</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	1406	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0.474
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1 314	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.443
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	814	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile <b>Thr</b>	Substitution, Pro>Thr	Missense Mutation	0.275
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	748	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Thr Pro	Substitution, Pro>Gln	Missense Mutation	0.252
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCATC	712	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile <b>His</b>	Substitution, Pro>His	Missense Mutation	0.240

## BE3-gMH (#7\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	200 394	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	65.069
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	47 002	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	15.262
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>G</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	16 648	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	5.406
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>T</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	3 003	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Leu	Missense Mutation	0.975
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>C</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	2056	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.668
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>G</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	2 042	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0.663
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	1 060	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.344
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	894	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Tyr</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Tyr	Missense Mutation	0.290
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	784	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Frameshift deletion	Frameshift Mutation, Knockout	0.255
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCATC	752	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile <b>Thr</b>	Substitution, Pro>Thr	Missense Mutation	0.244

## BE3-gMH (#8\_ hPCSK9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	246 592	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Wild type	Wild type	71.707
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	33 694	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	9.798
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>G</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	13 166	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	3.829
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>T</b> <b>A</b> ACCTGGAGCGGATTACCCCTC	2 380	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Leu</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Leu	Missense Mutation	0.692
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>C</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	2091	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Cys</b> Asn Leu Glu Arg Ile Thr Pro	Substitution, Trp>Cys	Missense Mutation	0.608
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGT <b>A</b> <b>T</b> ACCTGGAGCGGATTACCCCTC	1 750	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro <b>Stop</b>	Substitution, Trp>Stop	Nonsense Mutation, Knockout	0.509
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCATC	1 443	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile <b>Thr</b>	Substitution, Pro>Thr	Missense Mutation	0.420
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1 296	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile <b>Gln</b> Trp Asn Leu Glu Arg Ile Thr Pro	Substitution, Pro>Gln	Missense Mutation	0.377
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCATC	1 217	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile <b>His</b>	Substitution, Pro>His	Missense Mutation	0.354
TACATCGAGGAGGACTCTCTGTCTTGGCCAGACGATCCCGTGGAACTGGAGCGGATTACCCCTC	1 080	Tyr Ile Glu Glu Asp Ser Ser Val Phe Ala <b>Lys</b> Ser Ile Pro Trp Asn Leu Glu Arg Ile Thr Pro	Substitution, Gln>Lys	Missense Mutation	0.314

## BE3 (#1\_ mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCCTTGTCTTCGCCAGAGGCATCCCATGGAACCTGGAGCGAATTATCC	779 048	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,217
ATTGAGGAAGACTCCTTGTCTTC <b>A</b> CCAGAGCATCCCATGGAACCTGGAGCGAATTATCC	374	Ile Glu Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Missense Mutation	0,047
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>A</b> CATCCCATGGAACCTGGAGCGAATTATCC	370	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Missense Mutation	0,047
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAGCGAATTATCC	366	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Gln</b> Ile Ile	Substitution, Arg>Gln	Missense Mutation	0,046
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>G</b> ATCCCATGGAACCTGGAGCGAATTATCC	251	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0,032
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	218	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0,027
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>P</b> he Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	212	Ile Glu Glu Asp Ser Phe <b>Asp</b> Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Missense Mutation	0,027
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAGCGAATTATCC	179	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Missense Mutation	0,023
ATTGAGGAAGACTCCTTGT <b>C</b> ATGCCAGAGCATCCCATGGAACCTGGAGCGAATTATCC	161	Ile Glu Glu Asp Ser Phe Val <b>Tle</b> Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Ile	Missense Mutation	0,020

## BE3 (#2\_ mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCCTTGTCTTCGCCAGAGGCATCCCATGGAACCTGGAGCGAATTATCC	372 474	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,271
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAG <b>T</b> GAATTATCC	178	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	NonSense Mutation, Knockout	0,047
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>A</b> CATCCCATGGAACCTGGAGCGAATTATCC	153	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Missense Mutation	0,040
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	150	Ile Glu Glu Asp Ser Phe Val <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Missense Mutation	0,040
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>G</b> ATCCCATGGAACCTGGAGCGAATTATCC	130	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0,034
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>A</b> CTTGCCAGAGCATCCATGGAACCTGGAGCGAATTATCC	95	Ile Glu Glu Asp Ser Phe <b>Asp</b> Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Missense Mutation	0,025
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAGCGAATTATCC	93	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Gln</b> Ile Ile	Substitution, Arg>Gln	Missense Mutation	0,025
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	87	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Missense Mutation	0,023

## BE3 (#3\_ mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCCTTGTCTTCGCCAGAGGCATCCCATGGAACCTGGAGCGAATTATCC	885 187	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,261
ATTGAGGAAGACTCCTTGTCTTC <b>A</b> CCAGAGCATCCCATGGAACCTGGAGCGAATTATCC	459	Ile Glu Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Missense Mutation	0,051
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAGCGAATTATCC	382	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Missense Mutation	0,042
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>G</b> ATCCCATGGAACCTGGAGCGAATTATCC	297	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0,033
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	284	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0,032
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>A</b> CTTGCCAGAGCATCCATGGAACCTGGAGCGAATTATCC	262	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Val>Asp	Missense Mutation	0,029
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAGCGAATTATCC	212	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Leu>Pro	Missense Mutation	0,024
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	208	Ile Glu Glu Asp Ser <b>Leu</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Leu	Missense Mutation	0,023

## BE3 (#4\_ mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCCTTGTCTTCGCCAGAGGCATCCCATGGAACCTGGAGCGAATTATCC	520 784	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,213
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAG <b>T</b> GAATTATCC	267	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0,050
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>A</b> CATCCCATGGAACCTGGAGCGAATTATCC	251	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Missense Mutation	0,047
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	231	Ile Glu Glu Asp Ser Phe Val <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Missense Mutation	0,044
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>G</b> ATCCCATGGAACCTGGAGCGAATTATCC	149	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Missense Mutation	0,028
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>A</b> CTTGCCAGAGCATCCATGGAACCTGGAGCGAATTATCC	132	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0,025
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	132	Ile Glu Glu Asp Ser Phe <b>Asp</b> Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Missense Mutation	0,025
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>C</b> ATCCCATGGAACCTGGAGCGAATTATCC	117	Ile Glu Glu Asp Ser <b>Leu</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Leu	Missense Mutation	0,022
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>T</b> ATCCCATGGAACCTGGAGCGAATTATCC	111	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Gln</b> Ile Ile	Substitution, Arg>Gln	Missense Mutation	0,021
ATTGAGGAAGACTCCTTGTCTTCGCCAGAG <b>G</b> CATCCCATGGAACCTGGAGCGAATTATCC	97	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Gly</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Gly	Missense Mutation	0,018

BE3 (#5\_ *mPcsk9*)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	625 878	Ile Glu Asp Ser Phe Val Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,20%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	389	Ile Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Misense Mutation	0,06%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	317	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0,05%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	280	Ile Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Misense Mutation	0,04%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	195	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0,03%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	193	Ile Glu Asp Ser Phe <b>Asp</b> Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Misense Mutation	0,03%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	138	Ile Glu Asp Ser <b>Leu</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Leu	Misense Mutation	0,02%
ATTGAGGAAGACTCCTTGTCTCGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	136	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Misense Mutation	0,02%

### BE3 (#6\_ *mPcsk9*)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	656 566	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	99.19%
ATTGAGGAAGACTCTTTGTCCTC <b>A</b> CCAGAGCATCCATGGAACTTGGAGCGAATTATCC	354	Ile Glu Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Misense Mutation	0.053
ATTGAGGAAGACTCTTTGTCCTGCCAGAG <b>A</b> CATCCATGGAACTTGGAGCGAATTATCC	277	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Misense Mutation	0.049
ATTGAGGAAGACTCTTTGTCCTGCCAGAG <b>T</b> ATCCATGGAACTTGGAGCGAATTATCC	209	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0.031
ATTGAGGAAGACTCTTTGTCCTGCCAGAG <b>T</b> ATCCATGGAACTTGGAGCGAATTATCC	199	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0.030
ATTGAGGAAGACTCTTTGTC <b>G</b> ACTTGGCCCGACGATCCATGGAACTTGGAGCGAATTATCC	190	Ile Glu Glu Asp Ser Phe <b>Asp</b> Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Misense Mutation	0.028
ATTGAGGAAGACT <b>T</b> CTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	182	Ile Glu Glu Asp Ser <b>Ile</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Ile	Misense Mutation	0.027
ATTGAGGAAGACT <b>C</b> TTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	181	Ile Glu Glu Asp Ser <b>Leu</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Leu	Misense Mutation	0.027
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	172	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Misense Mutation	0.026
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	168	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Gln</b> Ile Ile	Substitution, Arg>Gln	Misense Mutation	0.025

BE3 (#7\_ mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	679 028	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,177
ATTGAGGAAGACTCTTTGTCCTCACCAGAGCATCCATGGAACTTGGAGCGAATTATCC	369	Ile Glu Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Misense Mutation	0.053
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	317	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Misense Mutation	0.046
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	307	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0.044
ATTGAGGAAGACTCTTTGTCCTGCCAGAGAT <b>T</b> ATCCATGGAACTTGGAGCGAATTATCC	210	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0.030
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATGGACCGAGATTATCC	196	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Misense Mutation	0.028
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATGGACCGAGATTATCC	184	Ile Glu Glu Asp Ser Phe <b>Asp</b> Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Misense Mutation	0.027
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	175	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0.025
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	169	Ile Glu Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Gln</b> Ile Ile	Substitution, Arg>Gln	Misense Mutation	0.024
ATTGAGGAAGACTCTTTGTCCTGCCAGAGCATCCATGGAACTTGGAGCGAATTATCC	147	Ile Glu Glu Asp Ser <b>Leu</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Leu	Misense Mutation	0.023

### BE3 (#8\_ mPcsk9)

Alleles	#Reads	Protein Sequence	Type	Outcome	Percentage
ATTGAGGAAGACTCCCTTGTCTGGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	423 846	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Wild type	Wild type	98,242
ATTGAGGAAGACTCCCTTGTCTC <b>A</b> CCAGACATCCCATGGAACTTGGAGCAATTATCC	230	Ile Glu Asp Ser Phe Val Phe <b>Thr</b> Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ala>Thr	Misense Mutation	0.053
ATTGAGGAAGACTCCCTTGTCTGGCCAGAG <b>C</b> ATCCATGGAACTTGGAGCAATTATCC	200	Ile Glu Asp Ser Phe Val Phe Ala Gln <b>Asn</b> Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Ser>Asn	Misense Mutation	0.046
ATTGAGGAAGACTCCCTTGTCTGGCCAGAG <b>T</b> ATCCATGGAACTTGGAGCAATTATCC	120	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution	Silent Mutation	0.028
ATTGAGGAAGACTCCCTTGTCTGGCCAGAGCATCCATGGAACTTGGAG <b>A</b> TTATCC	119	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Stop</b>	Substitution, Arg>Stop	Nonsense Mutation, Knockout	0.028
ATTGAGGAAGACTCCCTTGTCTGGCCAGAGCATCCATGGAACTTGGAG <b>G</b> TTATCC	118	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu <b>Gln</b> Ile Ile	Substitution, Arg>Gln	Misense Mutation	0.027
ATTGAGGAAGACTCCCTTGTCTGGCCAGAG <b>C</b> ATCCATGGAACTTGGAGCAATTATCC	118	Ile Glu Asp Ser Phe <b>Asp</b> Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Val>Asp	Misense Mutation	0.026
ATTGAGGAAGACTCCCTTGTCTGGCCAGAGCATCCATGGAACTTGGAGCAATTATCC	104	Ile Glu Asp Ser <b>Leu</b> Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg Ile Ile	Substitution, Phe>Leu	Misense Mutation	0.024
ATTGAGGAAGACTCCCTTGTCTGGCCAGAGCATCCATGGAACTTGGAG <b>C</b> AGCAATTATCC	98	Ile Glu Asp Ser Phe Val Phe Ala Gln Ser Ile Pro Trp Asn <b>Pro</b> Glu Arg Ile Ile	Substitution, Leu>Pro	Misense Mutation	0.023



