Sequence list

Seq. Id. No. 1 protein sequence of human complement factor H.

```
   1  MRLLAKIICL MLWAICVAED CNELPPRRNT EILTGSWSDQ TYPEGTQAIY
  51  KCRPGYRSLG NVIMVCRKGE WVALNPLRKC QKRPCGHPGD TPFGTFTLTG
 101  GNVFEYGVKA VYTCNEGYQL LGEINYRECD TDGWTNDIPI CEVVKCLPVT
 151  APENGKIVSS AMEPDREYHF GQAVRFVCNS GYKIEGDEEM HCSDDGFWSK
 201  EKPKCVEISC KSPDVINGSP ISQKIIYKEN ERFQYKCNMG YEYSERGDAV
 251  CTESGWRPLP SCEEKSCDNP YIPNGDYSPL RIKHRTGDEI TYQCRNGFYP
 301  ATRGNTAKCT STGWIPAPRC TLKPCDYPDI KHGGLYHENM RRPYFPVAVG
 351  KYYSYYCDEH FETPSGSYWD HIHCTQDGWS PAVPCLRKCY FPYLENGYNQ
 401  NYGRKFVQGK SIDVACHPGY ALPKAQTTVT CMENGWSPTP RCIRVKTCSK
 451  SSIDIENGFI SESQYTYALK EKAKYQCKLG YVTADGETSG SITCGKDGWS
 501  AQPTCIKSCD IPVFMNARTK NDFTWFKLND TLDYECHDGY ESNTGSTTGS
 551  IVCGYNGWSD LPICYERECE LPKIDVHLVP DRKKDQYKVG EVLKFSCKPG
 601  FTIVGPNSVQ CYHFGLSPDL PICKEQVQSC GPPPELLNGN VKEKTKEEYG
 651  HSEVVEYYCN PRFLMKGPNK IQCVDGEWTT LPVCIVEEST CGDIPELEHG
 701  WAQLSSPPYY YGDSVEFNCS ESFTMIGHRS ITCIHGVWTQ LPQCVAIDKL
 751  KKCKSSNLII LEEHLKNKKE FDHNSNIRYR CRGKEGWIHT VCINGRWDPE
 801  VNCSMAQIQL CPPPPQIPNS HNMTTTLNYR DGEKVSVLCQ ENYLIQEGEE
 851  ITCKDGRWQS IPLCVEKIPC SQPPQIEHGT INSSRSSQES YAHGTKLSYT
 901  CEGGFRISEE NETTCYMGKW SSPPQCEGLP CKSPPEISHG VVAHMSDSYQ
 951  YGEEVTYKCF EGFGIDGPAI AKCLGEKWSH PPSCIKTDCL SLPSFENAIP
1001  MGEKKDVYKA GEQVTYTCAT YYKMDGASNV TCINSRWTGR PTCRDTSCVN
1051  PPTVQNAYIV SRQMSKYPSG ERVRYQCRSP YEMFGDEEVM CLNGNWTEPP
1101  QCKDSTGKCG PPPPIDNGDI TSFPLSVYAP ASSVEYQCQN LYQLEGNKRI
1151  TCRNGQWSEP PKCLHPCVIS REIMENYNIA LRWTAKQKLY SRTGESVEFV
1201  CKRGYRLSSR SHTLRTTCWD GKLEYPTCAK R
```

with variants

VAR SEQ 446-449	KTCS -> SFTL (in isoform 2).
VAR SEQ 450-1231	Missing (in isoform 2).
VARIANT 62	V -> I

VARIANT 78	R -> G
VARIANT 127	R -> L
VARIANT 224	missing
VARIANT 325	C -> Y
VARIANT 400	Q -> K
VARIANT 402	Y -> H
VARIANT 431	C -> S
VARIANT 493	T -> R
VARIANT 536	C -> R
VARIANT 551	I -> T
VARIANT 567	R -> G
VARIANT 609	V -> I
VARIANT 630	C -> W
VARIANT 673	C -> S
VARIANT 673	C -> Y
VARIANT 850	E -> K
VARIANT 890	S -> I
VARIANT 893	H -> R
VARIANT 915	C -> S
VARIANT 936	E -> D
VARIANT 950	Q -> H
VARIANT 951	Y -> H
VARIANT 956	T -> M
VARIANT 959	C -> Y
VARIANT 978	W -> C
VARIANT 997	N -> T
VARIANT 1007	V -> I
VARIANT 1007	V -> L
VARIANT 1010	A -> T
VARIANT 1017	T -> I
VARIANT 1021	Y -> F
VARIANT 1043	C -> R

VARIANT	1050	N -> Y
VARIANT	1059	I -> T
VARIANT	1076	Q -> E
VARIANT	1078	R -> S
VARIANT	1119	D -> G
VARIANT	1134	V -> G
VARIANT	1142	Y -> D
VARIANT	1143	Q -> E
VARIANT	1157	W -> R
VARIANT	1163	C -> W
VARIANT	1169	I -> L
VARIANT	1183	W -> C
VARIANT	1183	W -> L
VARIANT	1183	W -> R
VARIANT	1184	T -> R
VARIANT	1189	L -> R
VARIANT	1191	S -> L
VARIANT	1194	G -> D
VARIANT	1197	V -> A
VARIANT	1198	E -> A
VARIANT	1199	F -> S
VARIANT	1210	R -> C
VARIANT	1215	R -> G
VARIANT	1215	R -> Q
VARIANT	1225-1231	YPTCAKR -> FQS
VARIANT	1226	P -> S

Seq. Id. No. 2 protein sequence of human complement factor H related protein CFHR1.

```
  1  MWLLVSVILI SRISSVGGEA TFCDFPKINH GILYDEEKYK PFSQVPTGEV

 51  FYYSCEYNFV SPSKSFWTRI TCTEEGWSPT PKCLRLCFFP FVENGHSESS

101  GQTHLEGDTV QIICNTGYRL QNNENNISCV ERGWSTPPKC RSTDTSCVNP
```

151 PTVQNAHILS RQMSKYPSGE RVRYECRSPY EMFGDEEVMC LNGNWTEPPQ

201 CKDSTGKCGP PPPIDNGDIT SFPLSVYAPA SSVEYQCQNL YQLEGNKRIT

251 CRNGQWSEPP KCLHPCVISR EIMENYNIAL RWTAKQKLYL RTGESAEFVC

301 KRGYRLSSRS HTLRTTCWDG KLEYPTCAKR

with variants

VARIANT 157 H -> Y

VARIANT 159 L -> V

VARIANT 175 E -> Q

VARIANT 296 A -> V

Seq. Id. No. 3 protein sequence of human complement factor H related protein CFHR2.

1 MWLLVSVILI SRISSVGGEA MFCDFPKINH GILYDEEKYK PFSQVPTGEV

51 FYYSCEYNFV SPSKSFWTRI TCAEEGWSPT PKCLRLCFFP FVENGHSESS

101 GQTHLEGDTV QIICNTGYRL QNNENNISCV ERGWSTPPKC RSTISAEKCG

151 PPPPIDNGDI TSFLLSVYAP GSSVEYQCQN LYQLEGNNQI TCRNGQWSEP

201 PKCLDPCVIS QEIMEKYNIK LKWTNQQKLY SRTGDIVEFV CKSGYHPTKS

251 HSFRAMCQNG KLVYPSCEEK

with variant

ISOFORM 144-171 ISAEKCGPPPPIDNGDITSFLLSVYAPG -> S

(in isoform Short).

Seq. Id. No. 4 protein sequence of human complement factor H related protein CFHR3.

1 MLLLINVILT LWVSCANGQV KPCDFPDIKH GGLFHENMRR PYFPVAVGKY

51 YSYYCDEHFE TPSGSYWDYI HCTQNGWSPA VPCLRKCYFP YLENGYNQNY

101 GRKFVQGNST EVACHPGYGL PKAQTTVTCT EKGWSPTPRC IRVRTCSKSD

151 IEIENGFISE SSSIYILNKE IQYKCKPGYA TADGNSSGSI TCLQNGWSAQ

201 PICINSSEKC GPPPPISNGD TTSFLLKVYV PQSRVEYQCQ PYYELQGSNY

251 VTCSNGEWSE PPRCIHPCII TEENMNKNNI KLKGRSDRKY YAKTGDTIEF

301 MCKLGYNANT SILSFQAVCR EGIVEYPRCE

with variant

VARIANT 71 H -> Y

Seq. Id. No. 5 protein sequence of human complement factor H related protein CFHR4A.

```
  1  MLLLINVILT LWVSCANGQE VKPCDFPEIQ HGGLYYKSLR RLYFPAAAGQ
 51  SYSYYCDQNF VTPSGSYWDY IHCTQDGWSP TVPCLRTCSK SDVEIENGFI
101  SESSSIYILN EETQYNCKPG YATADGNSSG SITCLQNGWS TQPICIKFCD
151  MPVFENSRAK SNGMWFKLHD TLDYECYDGY ESSYGNTTDS IVCGEDGWSH
201  LPTCYNSSEN CGPPPPISNG DTTSFPQKVY LPWSRVEYQC QSYYELQGSK
251  YVTCSNGDWS EPPRCISMKP CEFPEIQHGH LYYENTRRPY FPVATGQSYS
301  YYCDQNFVTP SGSYWDYIHC TQDGWLPTVP CLRTCSKSDI EIENGFISES
351  SSIYILNKEI QYKCKPGYAT ADGNSSGSIT CLQNGWSAQP ICIKFCDMPV
401  FENSRAKSNG MRFKLHDTLD YECYDGYEIS YGNTTGSIVC GEDGWSHFPT
451  CYNSSEKCGP PPPISNGDTT SFLLKVYVPQ SRVEYQCQSY YELQGSNYVT
501  CSNGEWSEPP RCIHPCIITE ENMNKNNIQL KGKSDIKYYA KTGDTIEFMC
551  KLGYNANTSV LSFQAVCREG IVEYPRCE
```

Seq. Id. No. 6 protein sequence of human complement factor H related protein CFHR4B.

```
  1  MLLLINVILT LWVSCANGQE VKPCDFPEIQ HGGLYYKSLR RLYFPAAAGQ
 51  SYSYYCDQNF VTPSGSYWDY IHCTQDGWSP TVPCLRTCSK SDIEIENGFI
101  SESSSIYILN KEIQYKCKPG YATADGNSSG SITCLQNGWS AQPICIKFCD
151  MPVFENSRAK SNGMRFKLHD TLDYECYDGY EISYGNTTGS IVCGEDGWSH
201  FPTCYNSSEK CGPPPPISNG DTTSFLLKVY VPQSRVEYQC QSYYELQGSN
251  YVTCSNGEWS EPPRCIHPCI ITEENMNKNN IQLKGKSDIK YYAKTGDTIE
301  FMCKLGYNAN TSVLSFQAVC REGIVEYPRC E
```

with variant

```
   VARIANT 306             G -> E
```

Seq. Id. No. 7 protein sequence of human complement factor H related protein CFHR5.

```
  1  MLLLFSVILI SWVSTVGGEG TLCDFPKIHH GFLYDEEDYN PFSQVPTGEV
 51  FYYSCEYNFV SPSKSFWTRI TCTEEGWSPT PKCLRMCSFP FVKNGHSESS
101  GLIHLEGDTV QIICNTGYSL QNNEKNISCV ERGWSTPPIC SFTKGECHVP
151  ILEANVDAQP KKESYKVGDV LKFSCRKNLI RVGSDSVQCY QFGWSPNFPT
201  CKGQVRSCGP PPQLSNGEVK EIRKEEYGHN EVVEYDCNPN FIINGPKKIQ
```

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251  CVDGEWTTLP TCVEQVKTCG YIPELEYGYV QPSVPPYQHG VSVEVNCRNE

301  YAMIGNNMIT CINGIWTELP MCVATHQLKR CKIAGVNIKT LLKLSGKEFN

351  HNSRIRYRCS DIFRYRHSVC INGKWNPEVD CTEKREQFCP PPPQIPNAQN

401  MTTTVNYQDG EKVAVLCKEN YLLPEAKEIV CKDGRWQSLP RCVESTAYCG

451  PPPSINNGDT TSFPLSVYPP GSTVTYRCQS FYKLQGSVTV TCRNKQWSEP

501  PRCLDPCVVS EENMNKNNIQ LKWRNDGKLY AKTGDAVEFQ CKFPHKAMIS

551  SPPFRAICQE GKFEYPICE
```

with variants

VARIANT	46	P -> S
VARIANT	216	N -> S
VARIANT	277	Y -> N
VARIANT	356	R -> H
VARIANT	379	V -> L
VARIANT	521	L -> I
VARIANT	529	L -> R

Seq. Id. No. 8 oligonucleotide sequence for the forward primer used in the customized CFHR1 copy number assay

CAG TTC CAA TTG TGT CCA AGT GGA TGT

Seq. Id. No. 9 oligonucleotide sequence for the reverse primer used in the customized CFHR1 copy number assay

CAT TTC AAA CAA TCT CCA AGG AGA TGA TG

Seq. Id. No. 10 oligonucleotide sequence for the probe used in the customized CFHR1 copy number assay

CAA ATG TTC TCA AAG TGT GGT CGC T