

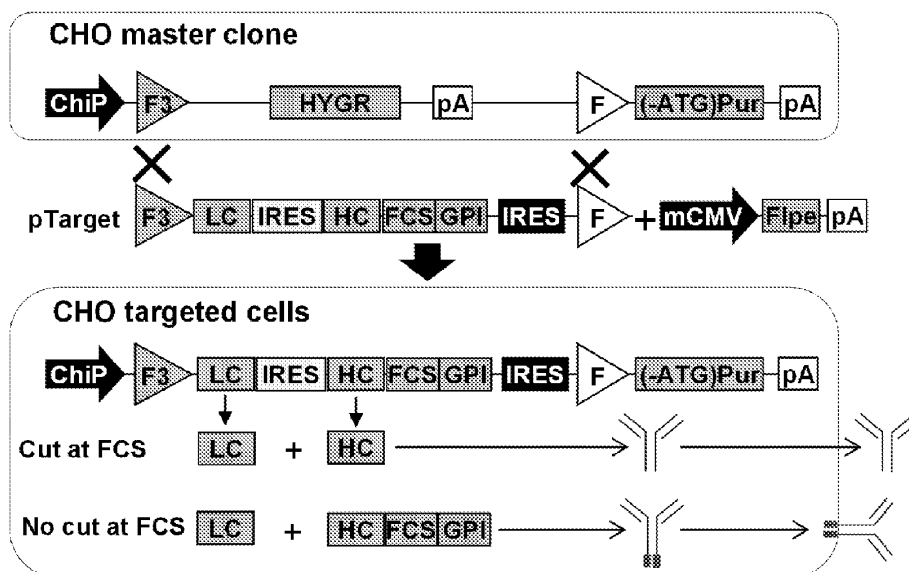


Fig. 1A

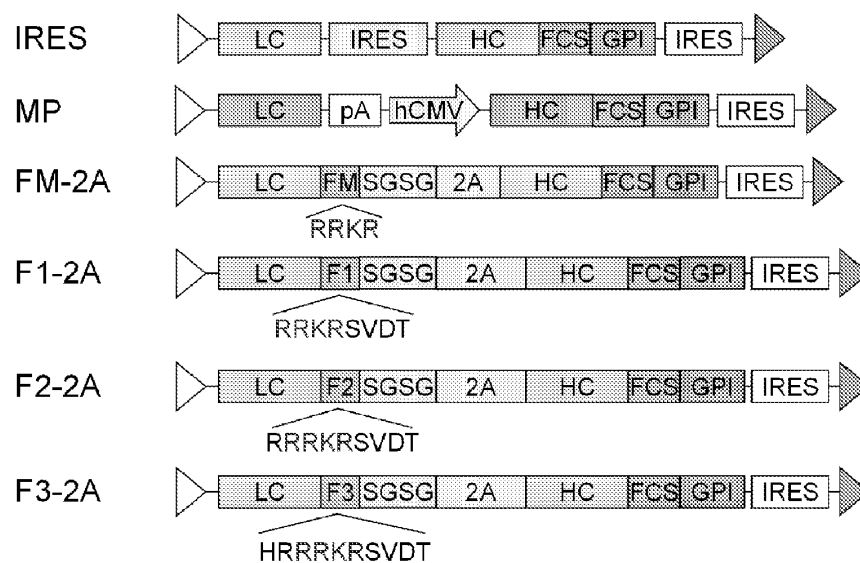


Fig. 1B

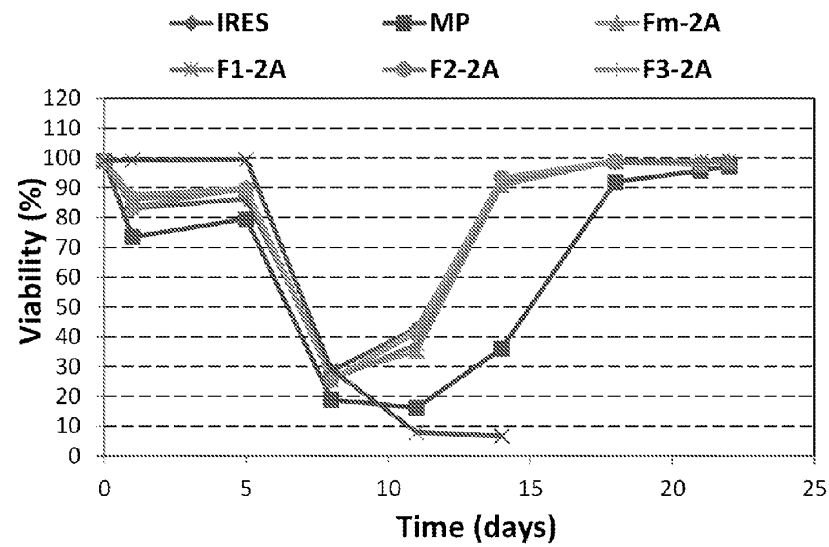


Fig. 2A

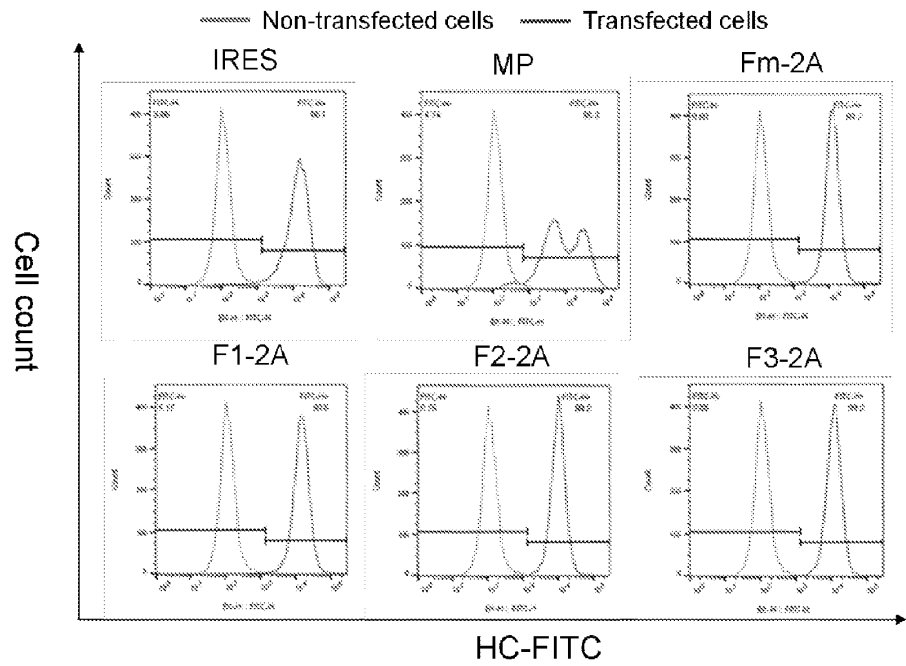


Fig. 2B

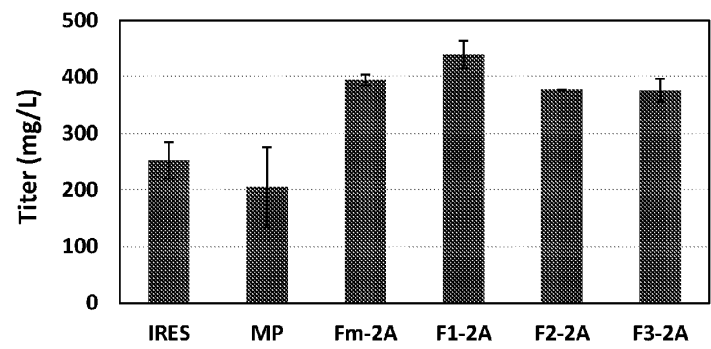


Fig. 2C

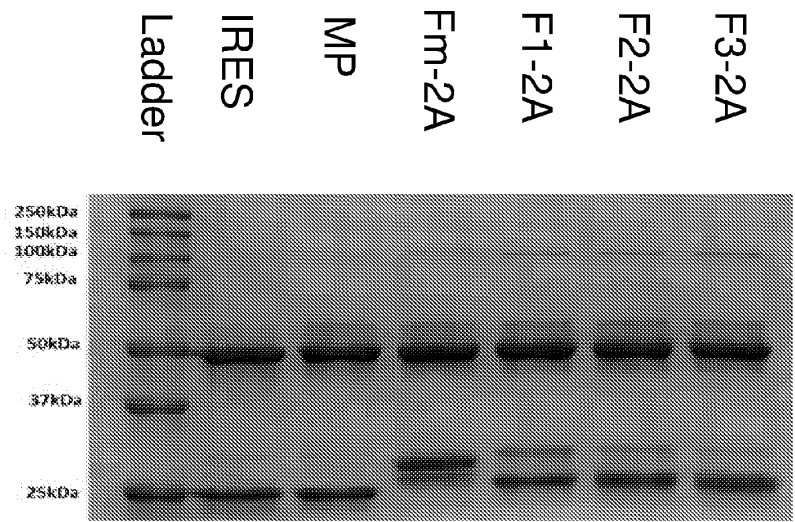


Fig. 2D

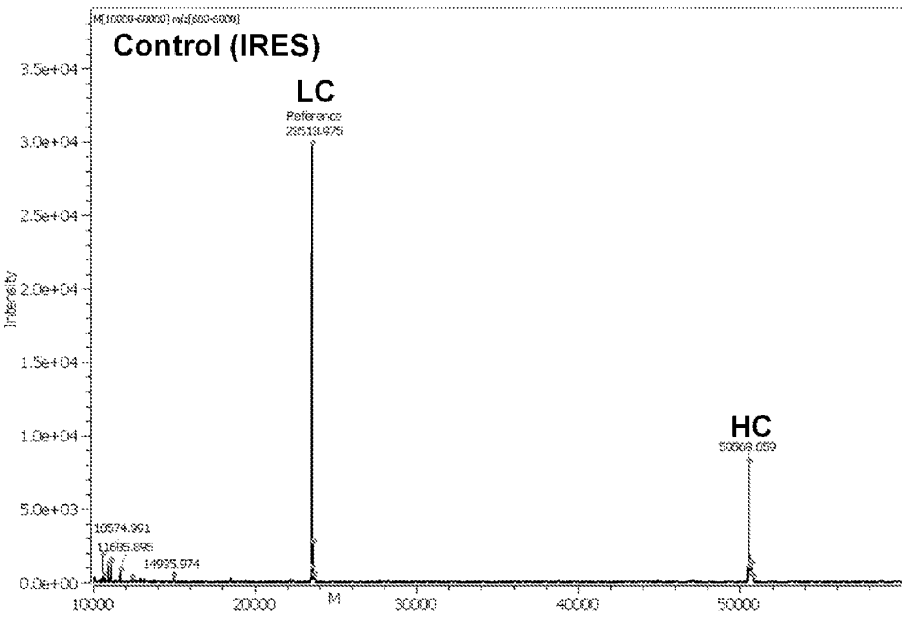


Fig. 3A

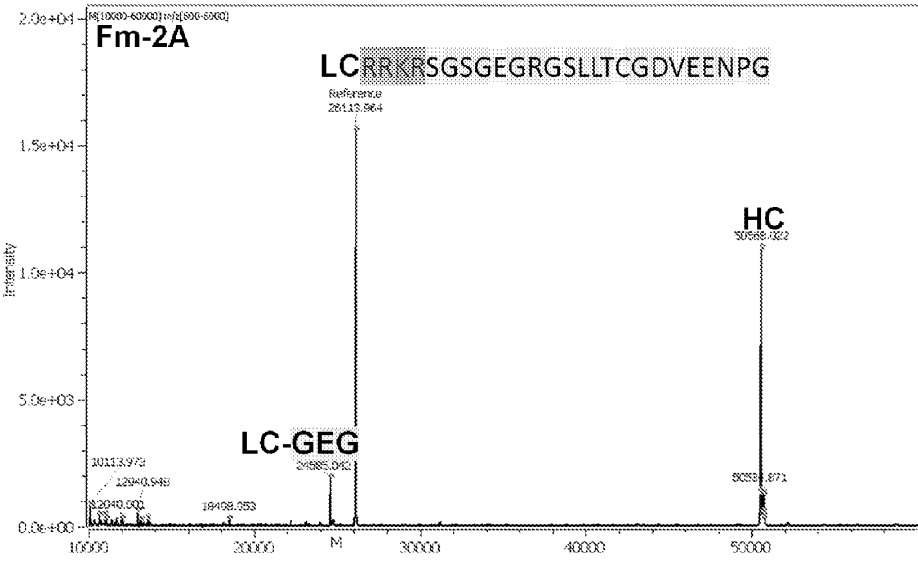


Fig. 3B

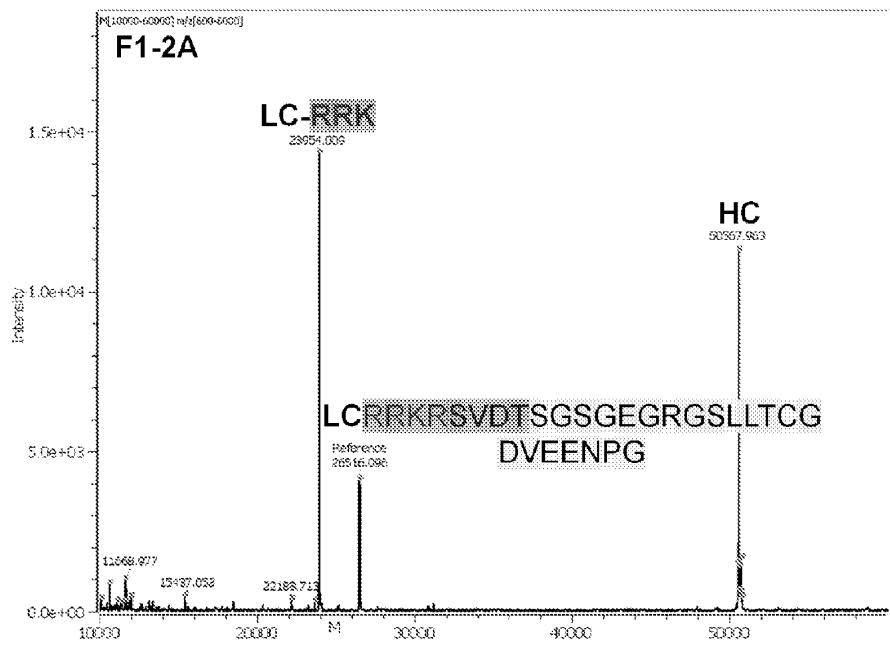


Fig. 3C

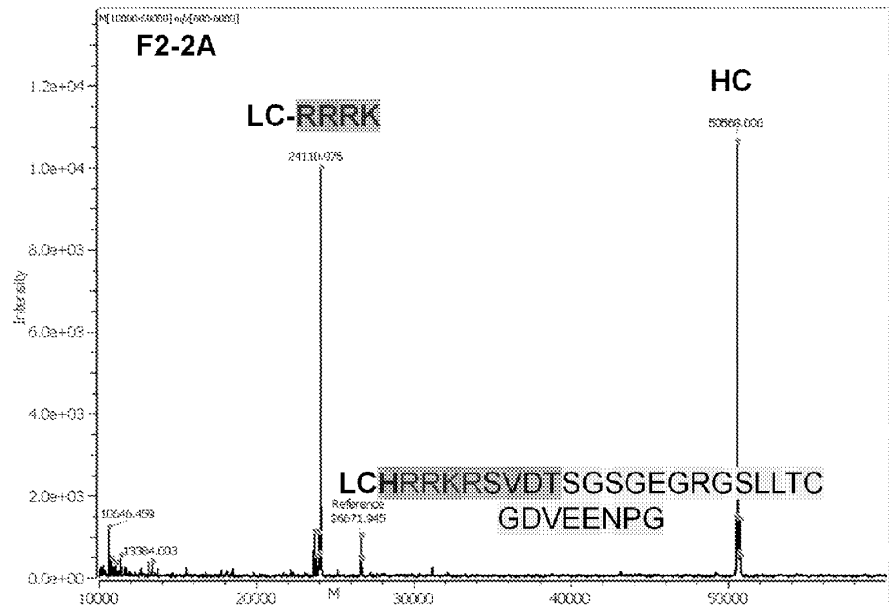


Fig. 3D

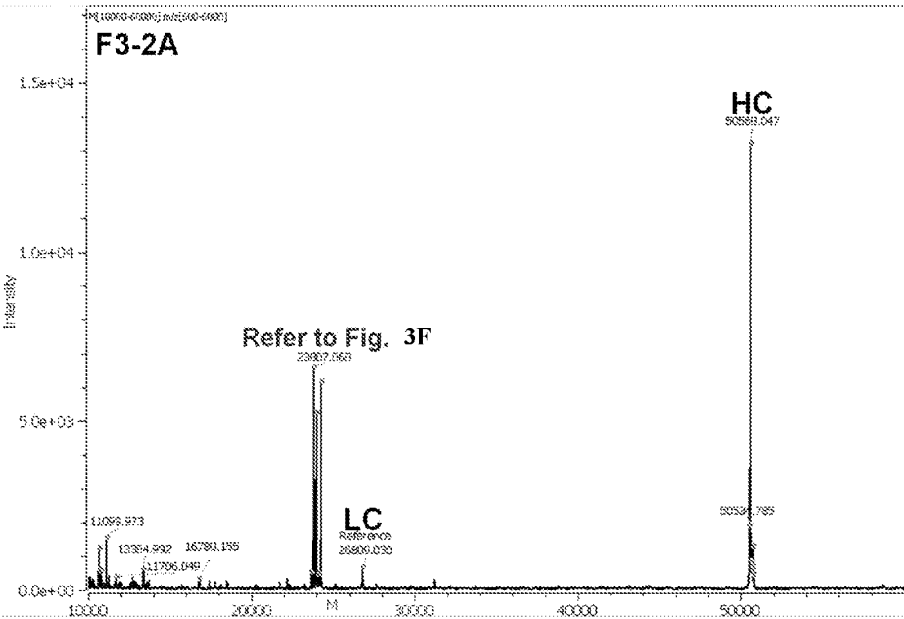


Fig. 3E

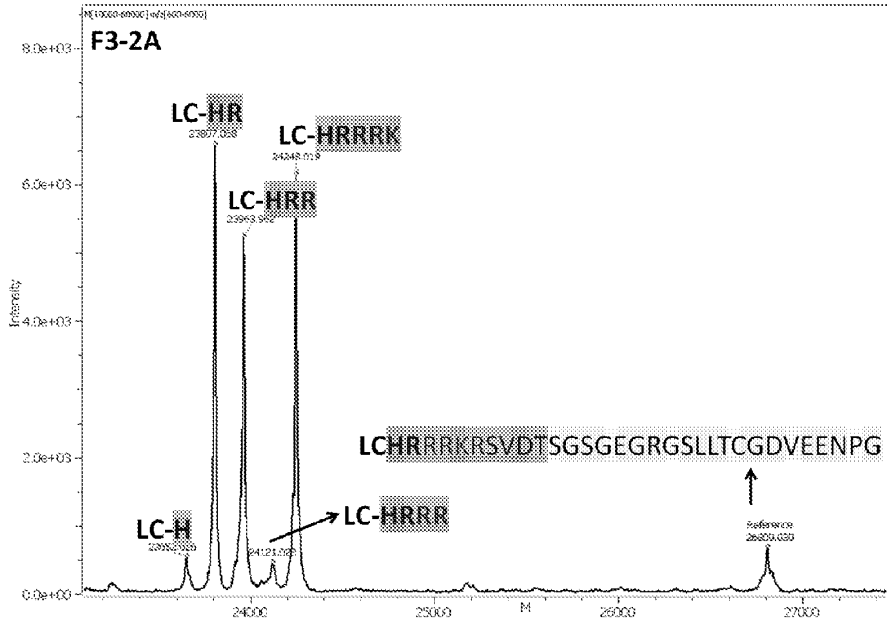


Fig. 3F

	Fm	F1	F2	F3
Cleaved LC species	LC-GEG	LC-RRK	LC-RRRK	LC-H, LC-HR, LC-HRR, LC-HRRR, LC-HRRRK
Intensity of Cleaved LC	2000	14500	10000	19200
Intensity of Un-cleaved LC attached with 2A peptide	18000	4000	1000	800
Cleavage efficiency %	11	78	91	96

Fig. 3G

FCS variant	P5	P4	P3	P2	P1	P1'	P2'	P3'	P4'
F2 (SEQ ID NO: 2)	R	R	R	K	R	S	V	D	T
F4 (SEQ ID NO: 3)	R	R	R	K	R	A	V	D	T
F5 (SEQ ID NO: 4)	R	R	R	K	R	S	L	D	T
F6 (SEQ ID NO: 5)	R	R	R	K	R	A	L	D	T
F7 (SEQ ID NO: 6)	R	R	R	K	R	S	V	S	T
F8 (SEQ ID NO: 7)	R	R	R	K	R	A	V	S	T
F9 (SEQ ID NO: 8)	R	R	R	K	R	A	L	S	T
F10 (SEQ ID NO: 9)	R	R	R	K	R	S	L	S	T
F11 (SEQ ID NO: 10)	R	R	R	K	R	S	V	D	L
F12 (SEQ ID NO: 11)	R	R	R	K	R	A	V	D	L
F13 (SEQ ID NO: 12)	R	R	R	K	R	S	L	D	L
F14 (SEQ ID NO: 13)	R	R	R	K	R	A	L	D	L
F15 (SEQ ID NO: 14)	R	R	R	K	R	S	V	S	L
F16 (SEQ ID NO: 15)	R	R	R	K	R	A	V	S	L
F17 (SEQ ID NO: 16)	R	R	R	K	R	A	L	S	L
F18 (SEQ ID NO: 17)	R	R	R	K	R	S	L	S	L

Fig. 4A

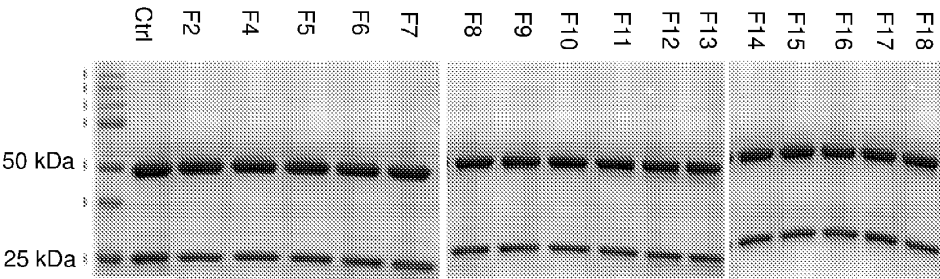


Fig. 4B

FCS variant	P5	P4	P3	P2	P1	P1'	P2'	P3'	P4'
F19 (SEQ ID NO: 66)	P	R	R	K	R	S	V	D	T
F20 (SEQ ID NO: 67)	G	R	R	K	R	S	V	D	T
F21 (SEQ ID NO: 68)	A	R	R	K	R	S	V	D	T
F22 (SEQ ID NO: 69)	K	R	R	K	R	S	V	D	T
F23 (SEQ ID NO: 70)	N	R	R	K	R	S	V	D	T
F24 (SEQ ID NO: 71)	D	R	R	K	R	S	V	D	T
F25 (SEQ ID NO: 72)	C	R	R	K	R	S	V	D	T
F26 (SEQ ID NO: 73)	E	R	R	K	R	S	V	D	T
F27 (SEQ ID NO: 74)	Q	R	R	K	R	S	V	D	T
F28 (SEQ ID NO: 75)	H	R	R	K	R	S	V	D	T
F29 (SEQ ID NO: 76)	I	R	R	K	R	S	V	D	T
F30 (SEQ ID NO: 77)	L	R	R	K	R	S	V	D	T
F31 (SEQ ID NO: 78)	M	R	R	K	R	S	V	D	T
F32 (SEQ ID NO: 79)	F	R	R	K	R	S	V	D	T
F33 (SEQ ID NO: 80)	S	R	R	K	R	S	V	D	T
F34 (SEQ ID NO: 81)	T	R	R	K	R	S	V	D	T
F35 (SEQ ID NO: 82)	W	R	R	K	R	S	V	D	T
F36 (SEQ ID NO: 83)	Y	R	R	K	R	S	V	D	T
F37 (SEQ ID NO: 84)	V	R	R	K	R	S	V	D	T
F38 (SEQ ID NO: 85)	R	R	R	K	R	P	V	D	T
F39 (SEQ ID NO: 86)	R	R	R	K	R	G	V	D	T
F40 (SEQ ID NO: 87)	R	R	R	K	R	A	V	D	T
F41 (SEQ ID NO: 88)	R	R	R	K	R	R	V	D	T
F42 (SEQ ID NO: 89)	R	R	R	K	R	K	V	D	T
F43 (SEQ ID NO: 90)	R	R	R	K	R	N	V	D	T
F44 (SEQ ID NO: 91)	R	R	R	K	R	D	V	D	T
F45 (SEQ ID NO: 92)	R	R	R	K	R	C	V	D	T
F46 (SEQ ID NO: 93)	R	R	R	K	R	E	V	D	T
F47 (SEQ ID NO: 94)	R	R	R	K	R	Q	V	D	T
F48 (SEQ ID NO: 95)	R	R	R	K	R	H	V	D	T
F49 (SEQ ID NO: 96)	R	R	R	K	R	I	V	D	T
F50 (SEQ ID NO: 97)	R	R	R	K	R	L	V	D	T
F51 (SEQ ID NO: 98)	R	R	R	K	R	M	V	D	T
F52 (SEQ ID NO: 99)	R	R	R	K	R	F	V	D	T
F53 (SEQ ID NO: 100)	R	R	R	K	R	T	V	D	T
F54 (SEQ ID NO: 101)	R	R	R	K	R	W	V	D	T
F55 (SEQ ID NO: 102)	R	R	R	K	R	Y	V	D	T

Fig. 5A

F56 (SEQ ID NO: 103)	R	R	R	K	R	V	V	D	T
F57 (SEQ ID NO: 104)	R	R	R	K	R	S	P	D	T
F58 (SEQ ID NO: 105)	R	R	R	K	R	S	G	D	T
F59 (SEQ ID NO: 106)	R	R	R	K	R	S	A	D	T
F60 (SEQ ID NO: 107)	R	R	R	K	R	S	R	D	T
F61 (SEQ ID NO: 108)	R	R	R	K	R	S	K	D	T
F62 (SEQ ID NO: 109)	R	R	R	K	R	S	N	D	T
F63 (SEQ ID NO: 110)	R	R	R	K	R	S	D	D	T
F64 (SEQ ID NO: 111)	R	R	R	K	R	S	C	D	T
F65 (SEQ ID NO: 112)	R	R	R	K	R	S	E	D	T
F66 (SEQ ID NO: 113)	R	R	R	K	R	S	Q	D	T
F67 (SEQ ID NO: 114)	R	R	R	K	R	S	H	D	T
F68 (SEQ ID NO: 115)	R	R	R	K	R	S	I	D	T
F69 (SEQ ID NO: 116)	R	R	R	K	R	S	L	D	T
F70 (SEQ ID NO: 117)	R	R	R	K	R	S	M	D	T
F71 (SEQ ID NO: 118)	R	R	R	K	R	S	F	D	T
F72 (SEQ ID NO: 119)	R	R	R	K	R	S	S	D	T
F73 (SEQ ID NO: 120)	R	R	R	K	R	S	T	D	T
F74 (SEQ ID NO: 121)	R	R	R	K	R	S	W	D	T
F75 (SEQ ID NO: 122)	R	R	R	K	R	S	Y	D	T
F76 (SEQ ID NO: 123)	R	R	R	K	R	S	V	P	T
F77 (SEQ ID NO: 124)	R	R	R	K	R	S	V	G	T
F78 (SEQ ID NO: 125)	R	R	R	K	R	S	V	A	T
F79 (SEQ ID NO: 126)	R	R	R	K	R	S	V	R	T
F80 (SEQ ID NO: 127)	R	R	R	K	R	S	V	K	T
F81 (SEQ ID NO: 128)	R	R	R	K	R	S	V	N	T
F82 (SEQ ID NO: 129)	R	R	R	K	R	S	V	C	T
F83 (SEQ ID NO: 130)	R	R	R	K	R	S	V	E	T
F84 (SEQ ID NO: 131)	R	R	R	K	R	S	V	Q	T
F85 (SEQ ID NO: 132)	R	R	R	K	R	S	V	H	T
F86 (SEQ ID NO: 133)	R	R	R	K	R	S	V	I	T
F87 (SEQ ID NO: 134)	R	R	R	K	R	S	V	L	T
F88 (SEQ ID NO: 135)	R	R	R	K	R	S	V	M	T
F89 (SEQ ID NO: 136)	R	R	R	K	R	S	V	F	T
F90 (SEQ ID NO: 137)	R	R	R	K	R	S	V	S	T
F91 (SEQ ID NO: 138)	R	R	R	K	R	S	V	T	T
F92 (SEQ ID NO: 139)	R	R	R	K	R	S	V	W	T
F93 (SEQ ID NO: 140)	R	R	R	K	R	S	V	Y	T
F94 (SEQ ID NO: 141)	R	R	R	K	R	S	V	V	T
F95 (SEQ ID NO: 142)	R	R	R	K	R	S	V	D	P

Fig. 5A (cont.)

F96 (SEQ ID NO: 143)	R	R	R	K	R	S	V	D	G
F97 (SEQ ID NO: 144)	R	R	R	K	R	S	V	D	A
F98 (SEQ ID NO: 145)	R	R	R	K	R	S	V	D	R
F99 (SEQ ID NO: 146)	R	R	R	K	R	S	V	D	K
F100 (SEQ ID NO: 147)	R	R	R	K	R	S	V	D	N
F101 (SEQ ID NO: 148)	R	R	R	K	R	S	V	D	D
F102 (SEQ ID NO: 149)	R	R	R	K	R	S	V	D	C
F103 (SEQ ID NO: 150)	R	R	R	K	R	S	V	D	E
F104 (SEQ ID NO: 151)	R	R	R	K	R	S	V	D	Q
F105 (SEQ ID NO: 152)	R	R	R	K	R	S	V	D	H
F106 (SEQ ID NO: 153)	R	R	R	K	R	S	V	D	I
F107 (SEQ ID NO: 154)	R	R	R	K	R	S	V	D	L
F108 (SEQ ID NO: 155)	R	R	R	K	R	S	V	D	M
F109 (SEQ ID NO: 156)	R	R	R	K	R	S	V	D	F
F110 (SEQ ID NO: 157)	R	R	R	K	R	S	V	D	S
F111 (SEQ ID NO: 158)	R	R	R	K	R	S	V	D	W
F112 (SEQ ID NO: 159)	R	R	R	K	R	S	V	D	Y
F113 (SEQ ID NO: 160)	R	R	R	K	R	S	V	D	V

Fig. 5A (cont.)

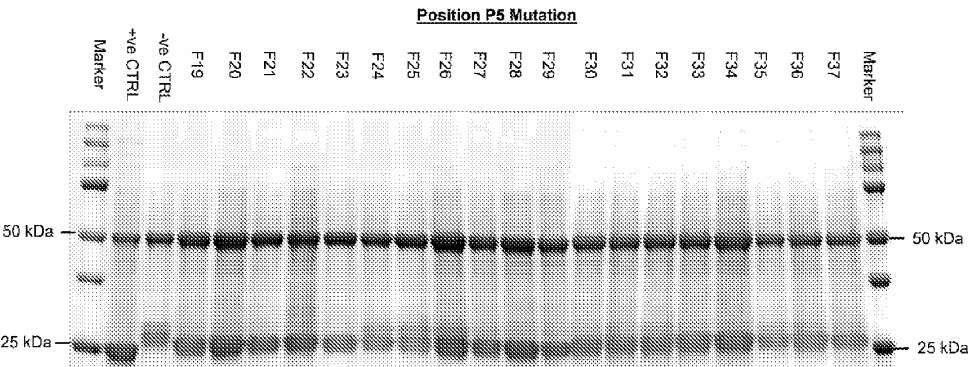


Fig. 5B

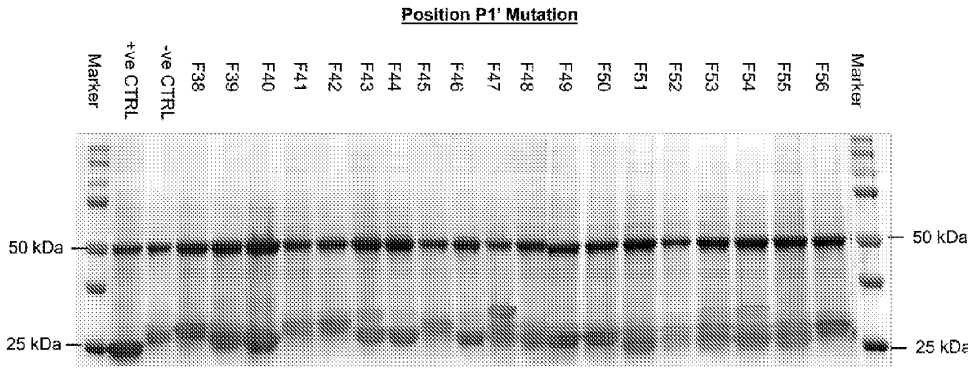


Fig. 5C

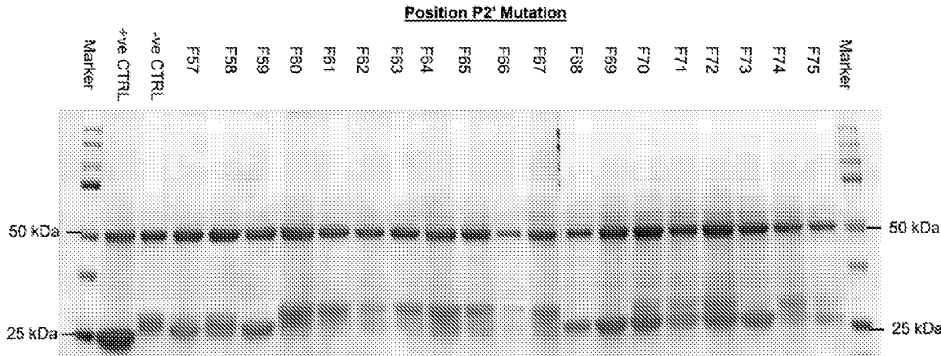


Fig. 5D

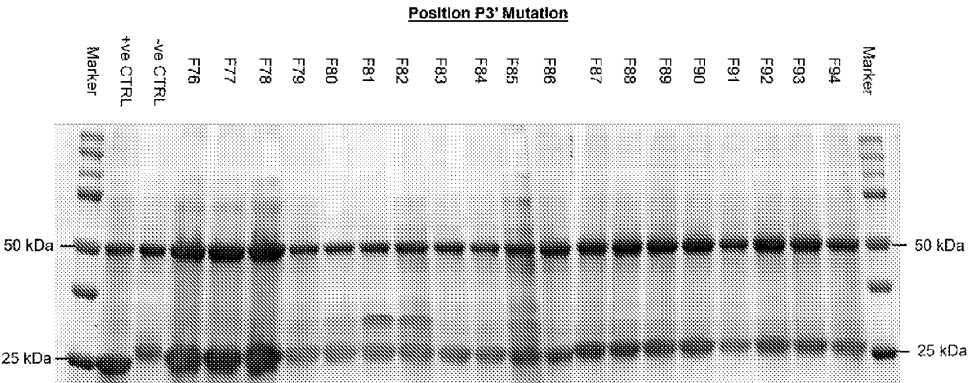


Fig. 5E

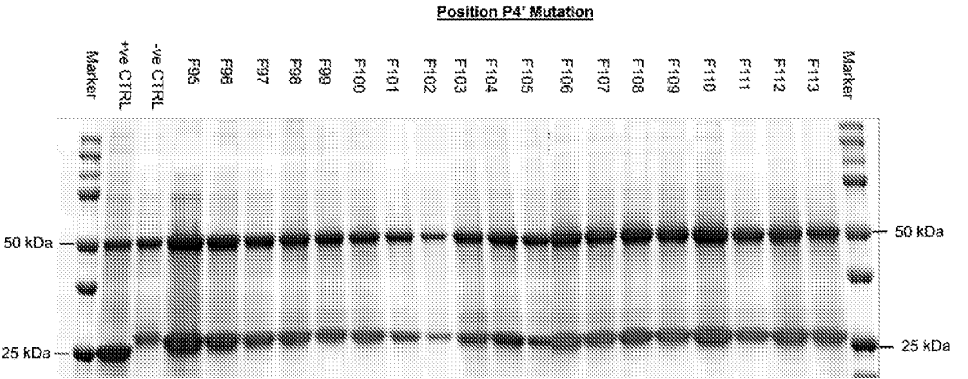


Fig. 5F