

Fig. 1

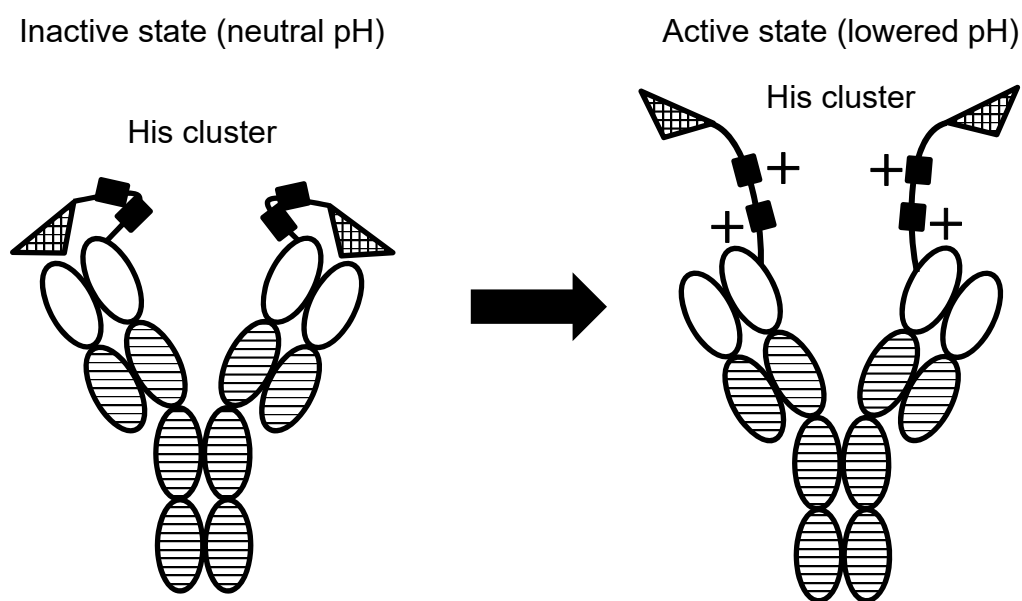


Fig. 2

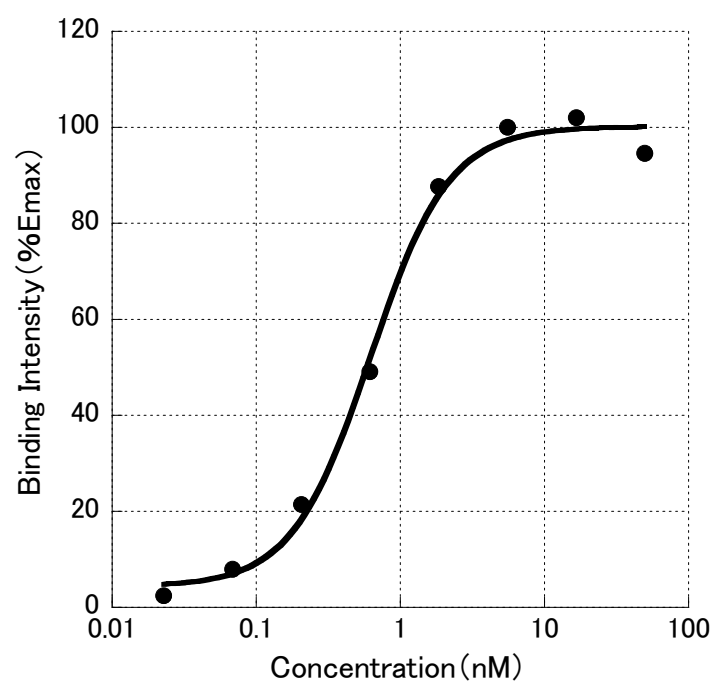


Fig. 3

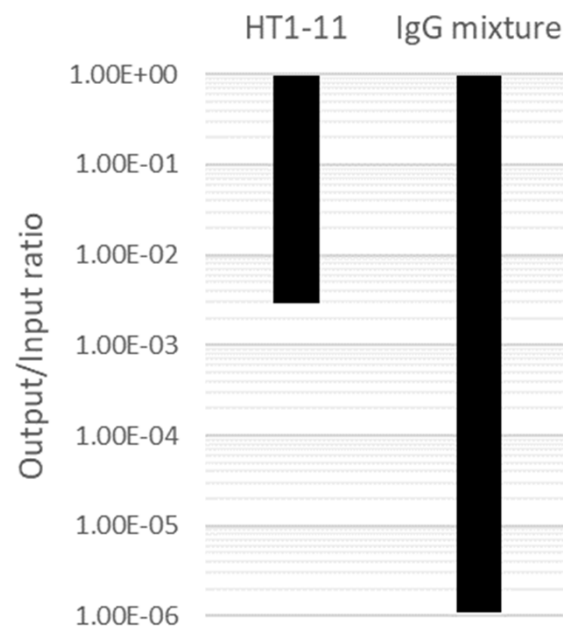


Fig. 4-1

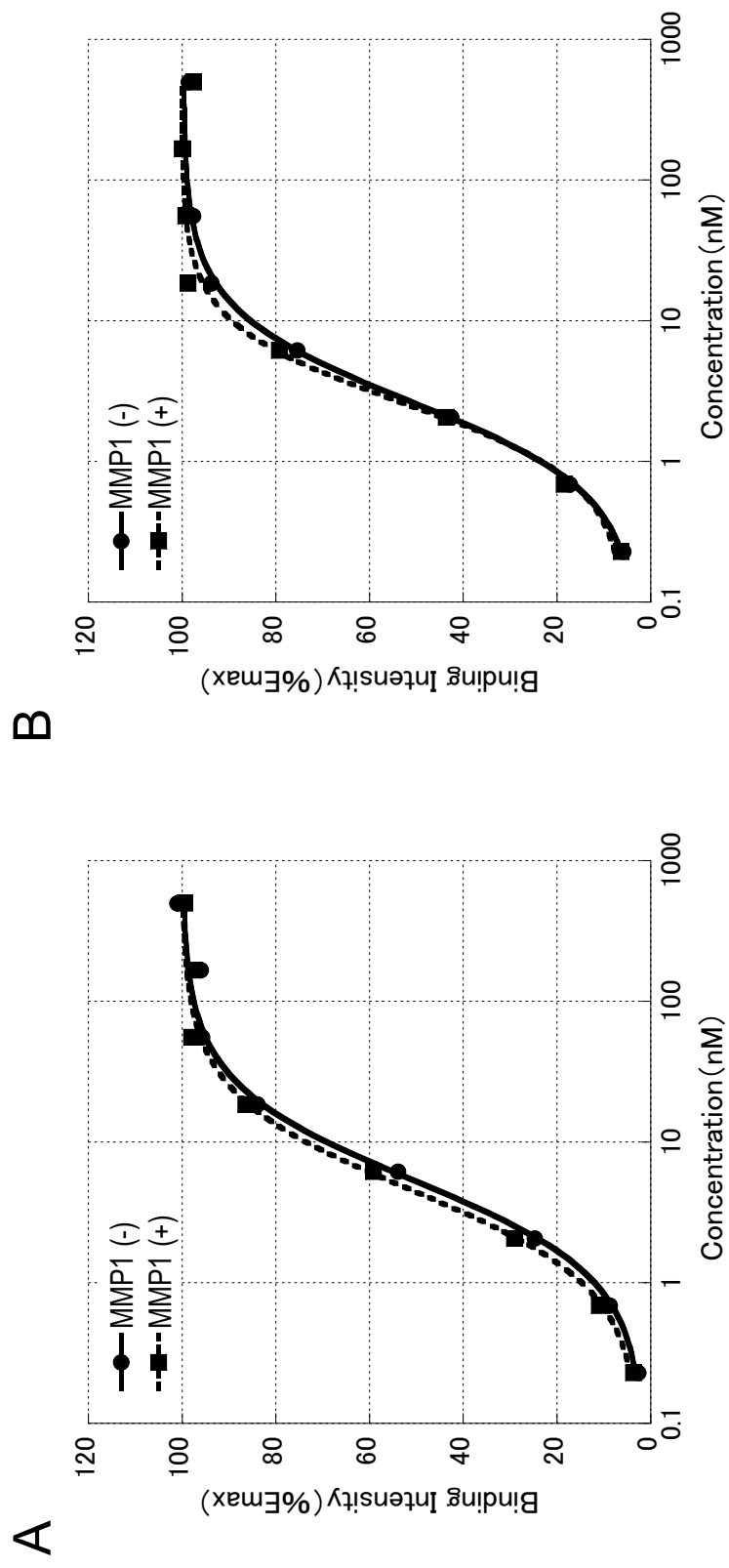


Fig. 4-2

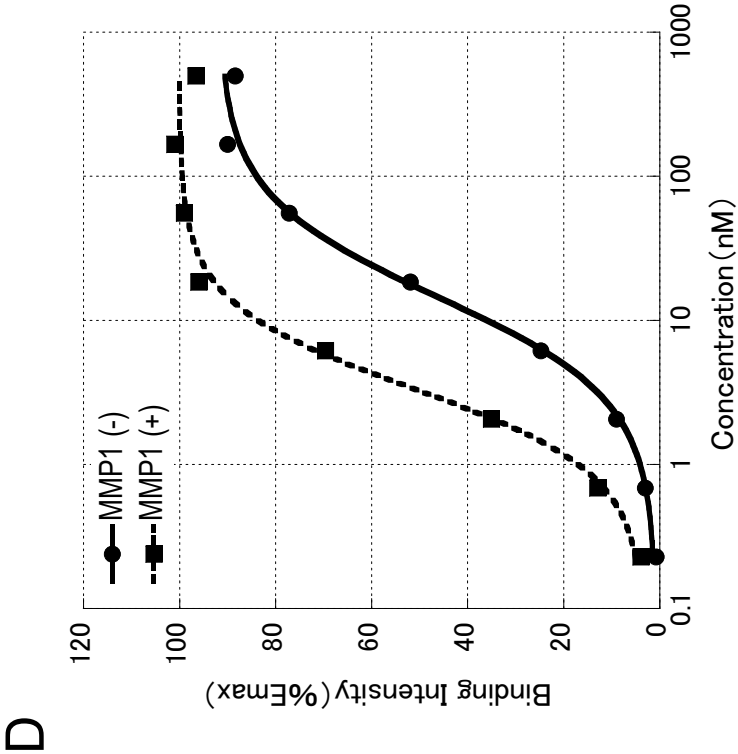
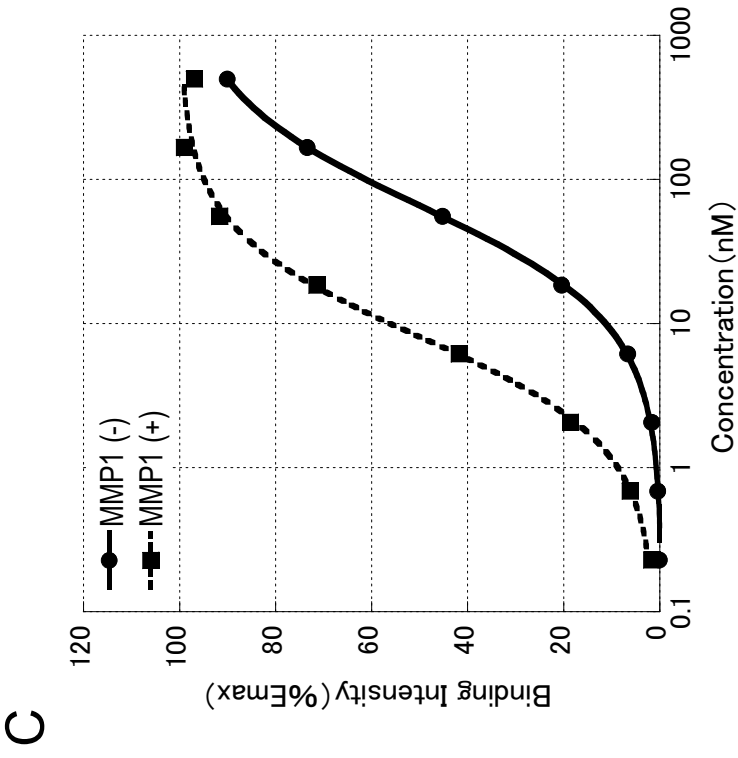


Fig. 5-1

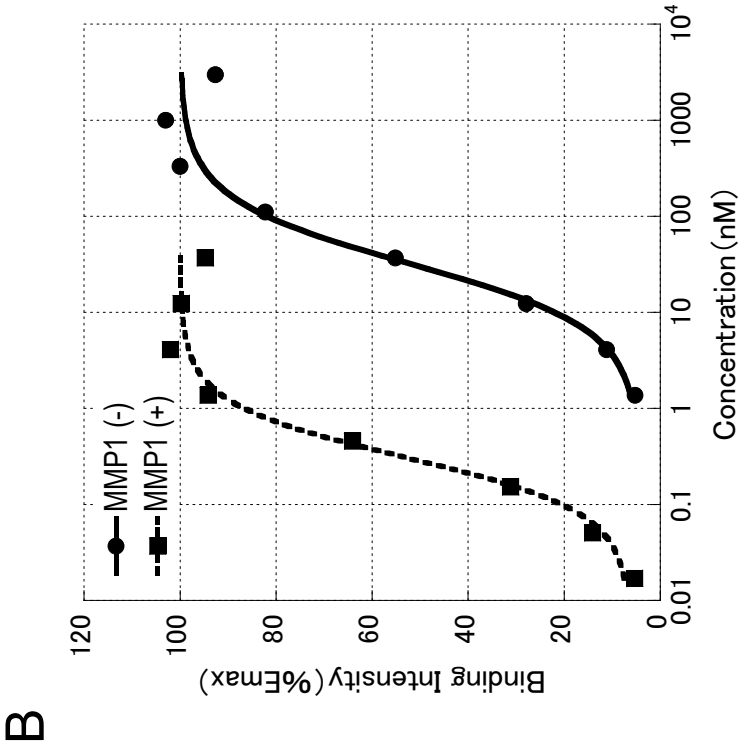
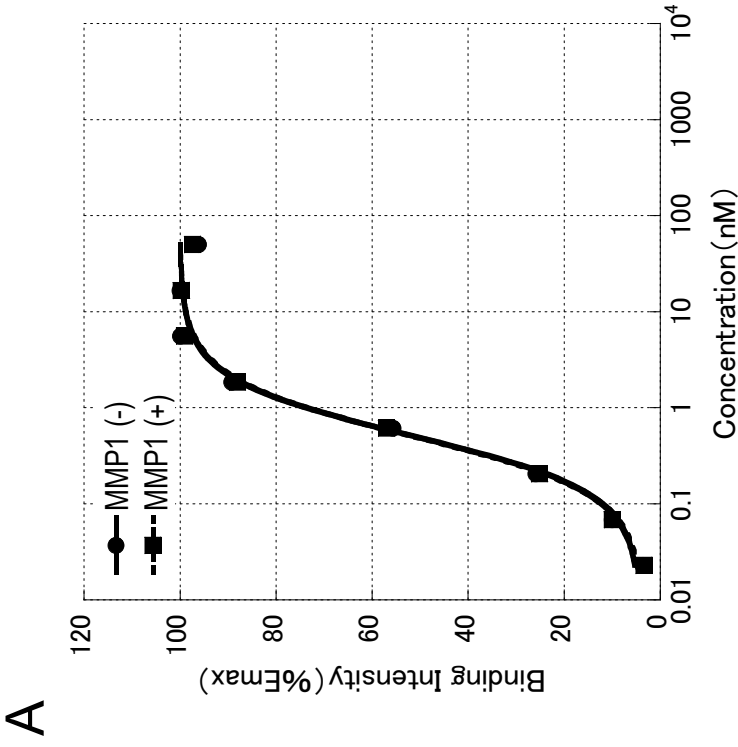


Fig. 5-2

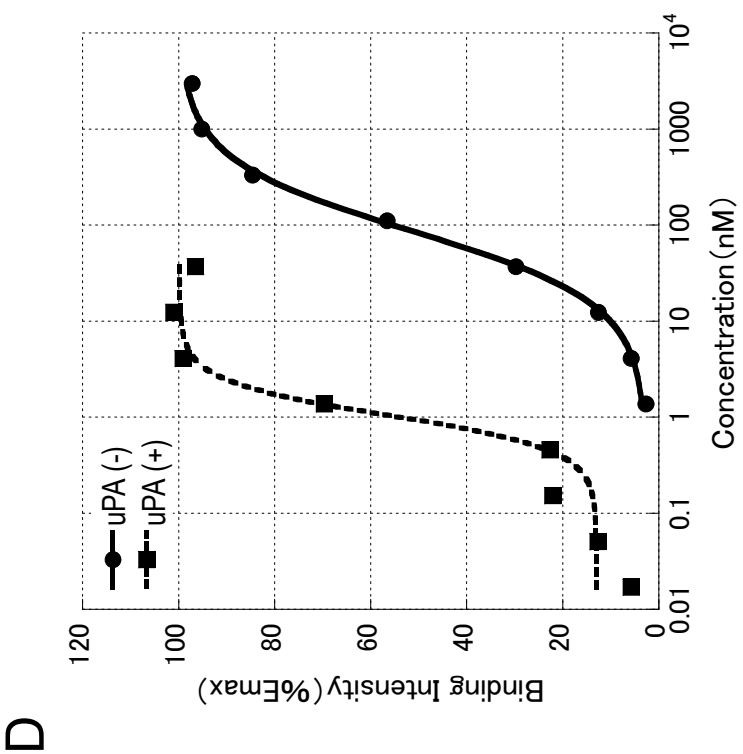
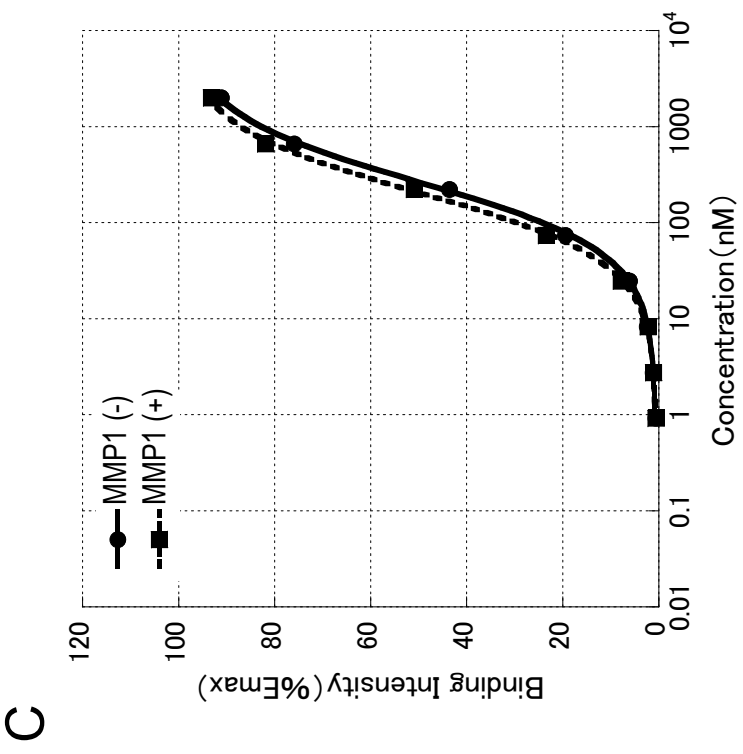


Fig. 6-1

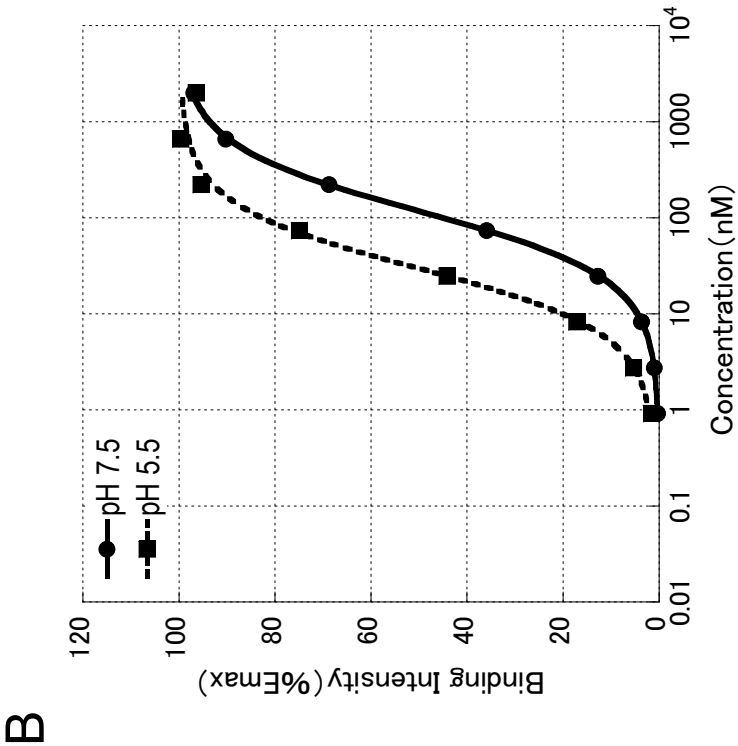
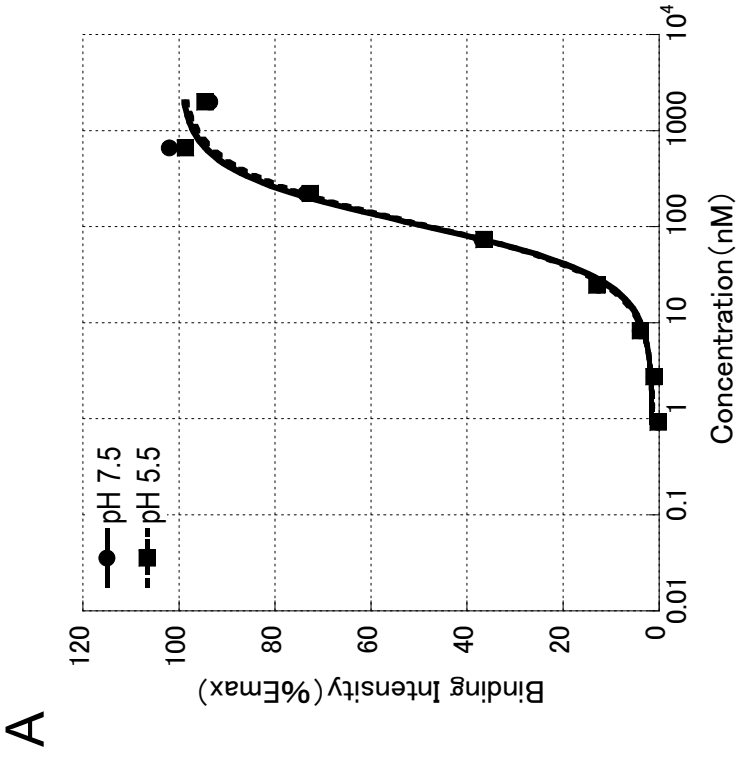


Fig. 6-2

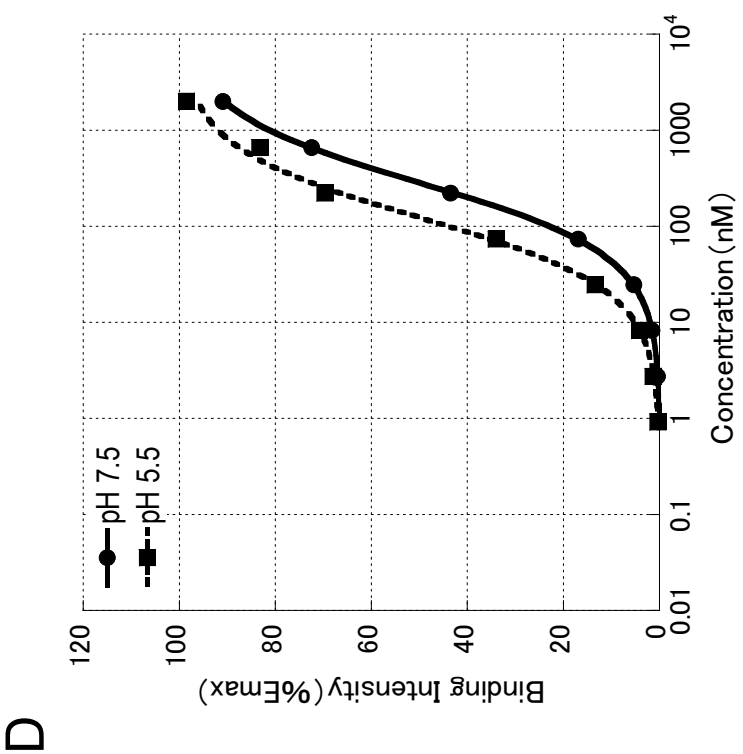
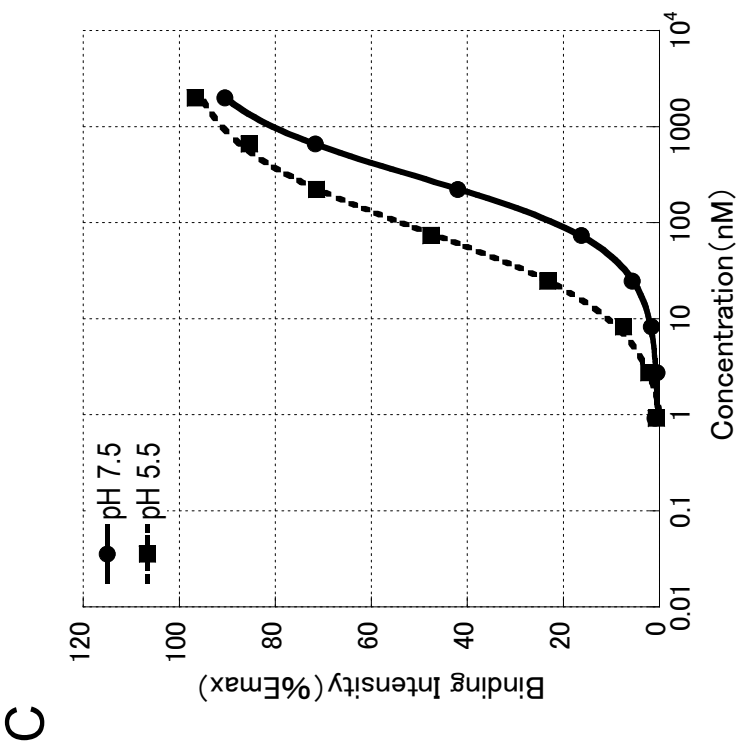
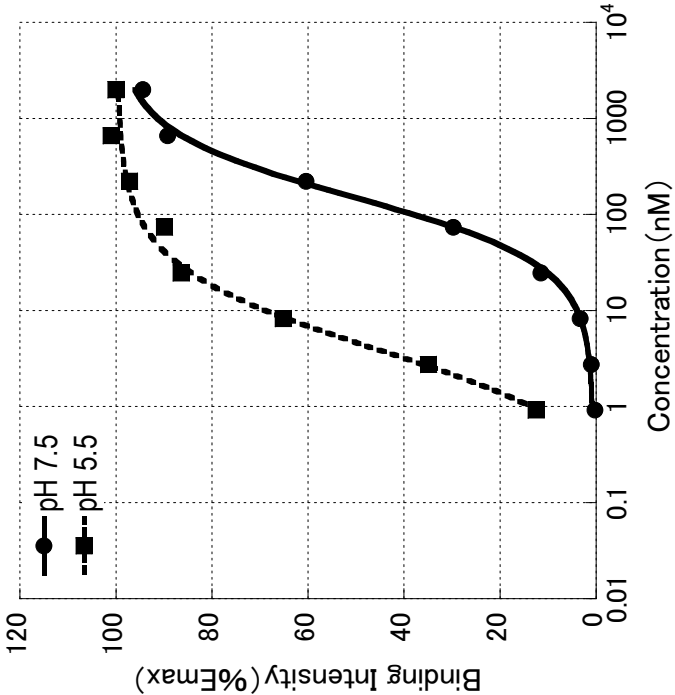


Fig. 6-3

E



F

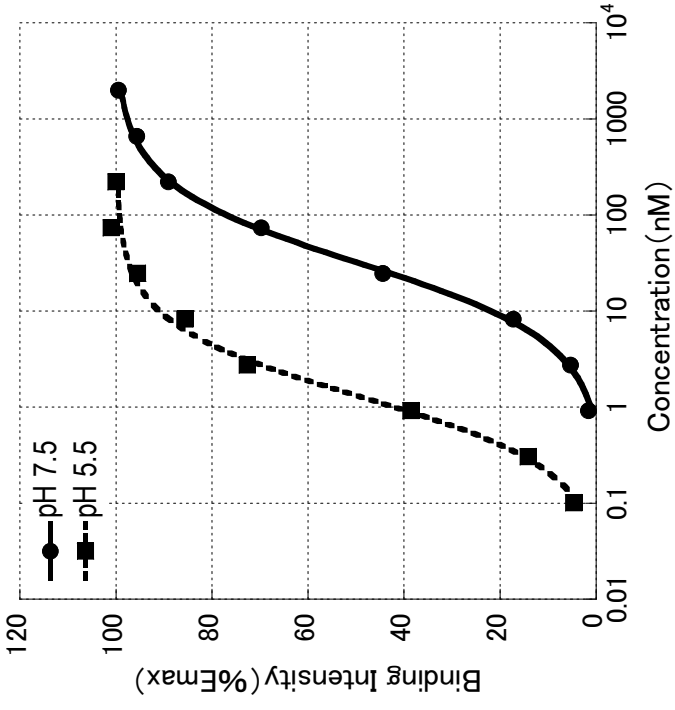
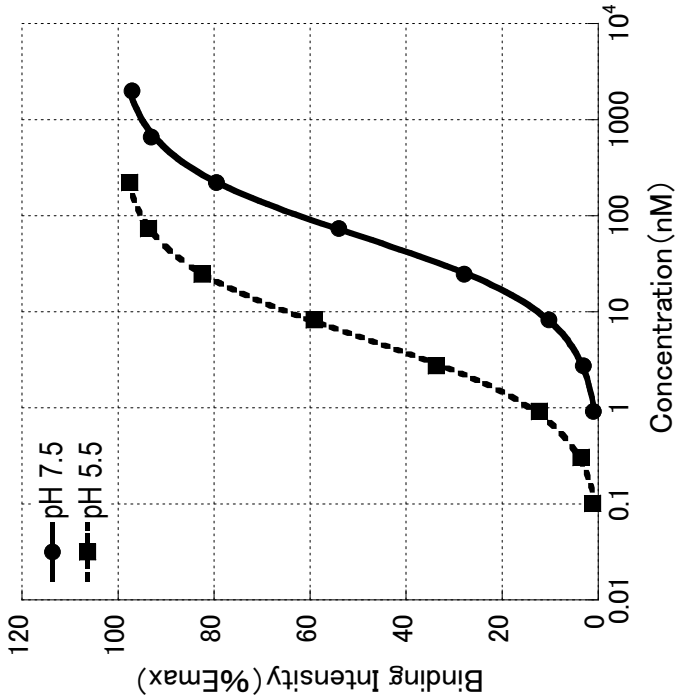


Fig. 6-4

G



H

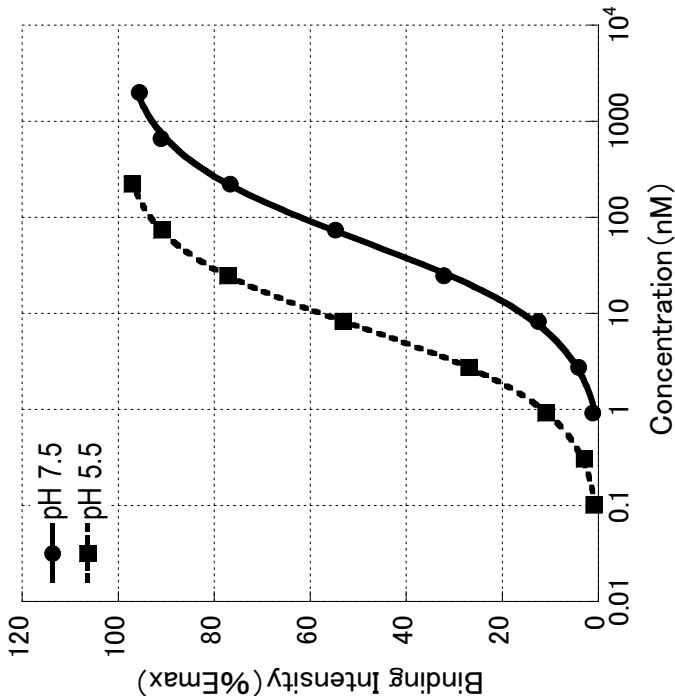
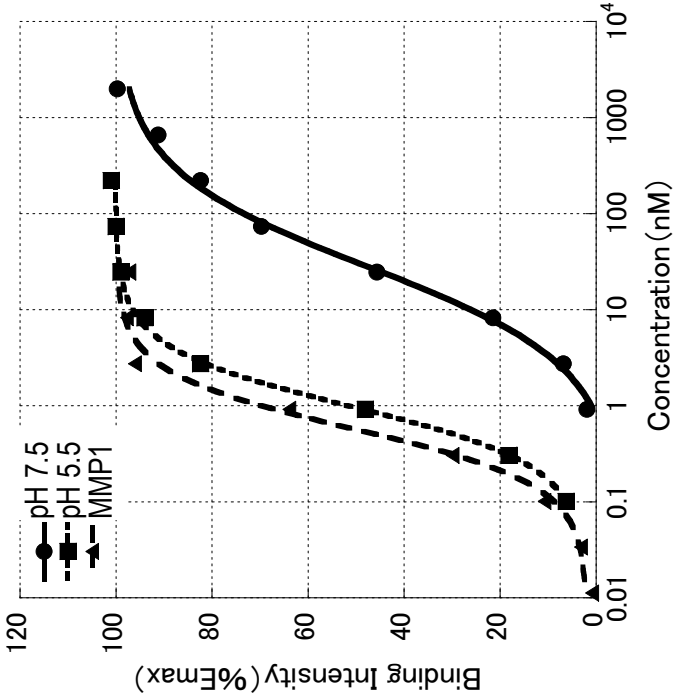


Fig. 6-5

I



J

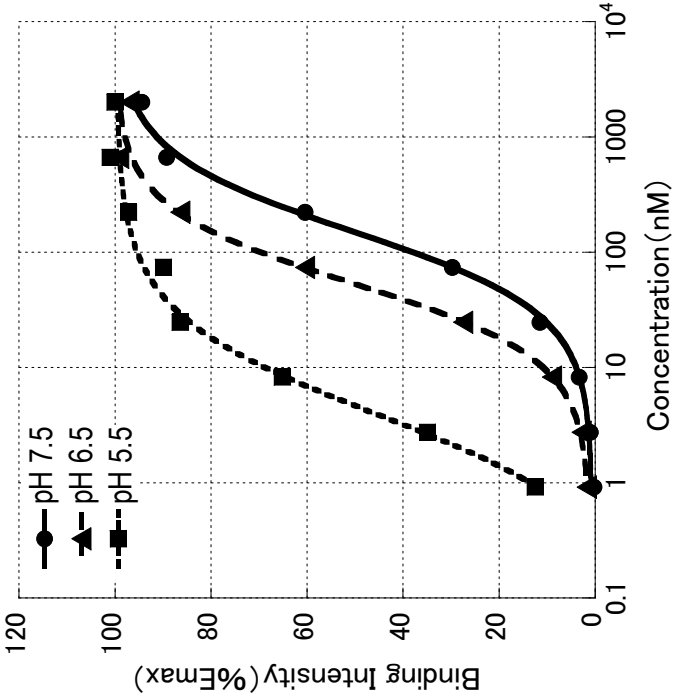


Fig. 6-6

K

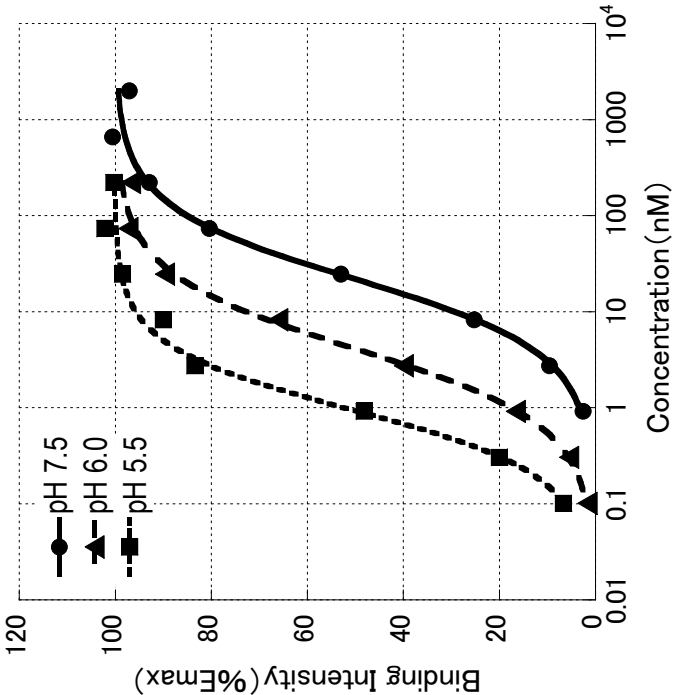


Fig. 7

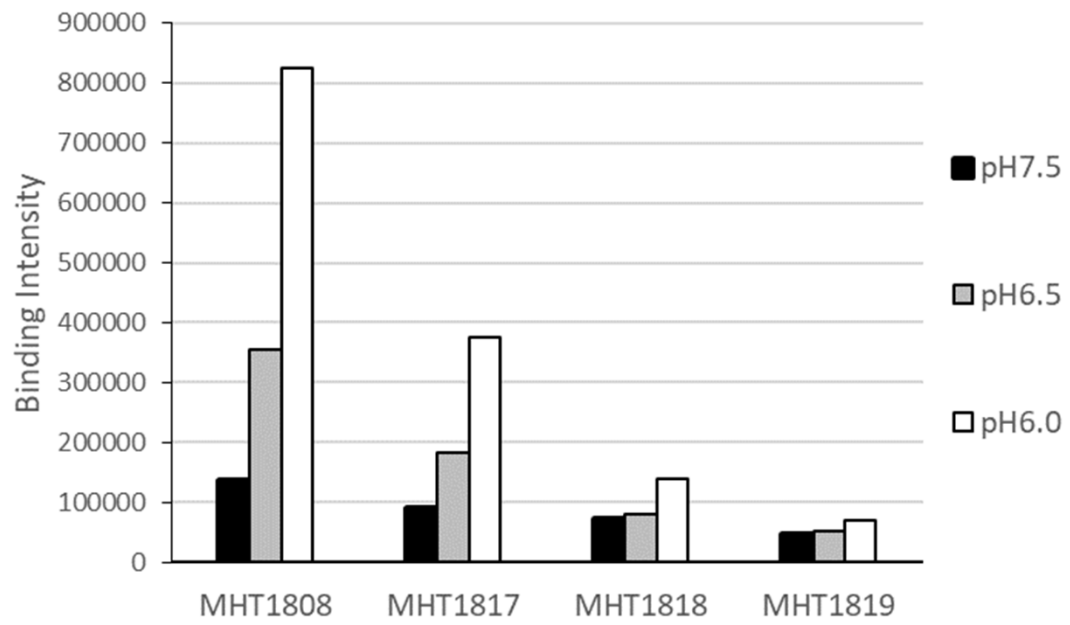


Fig. 8-1

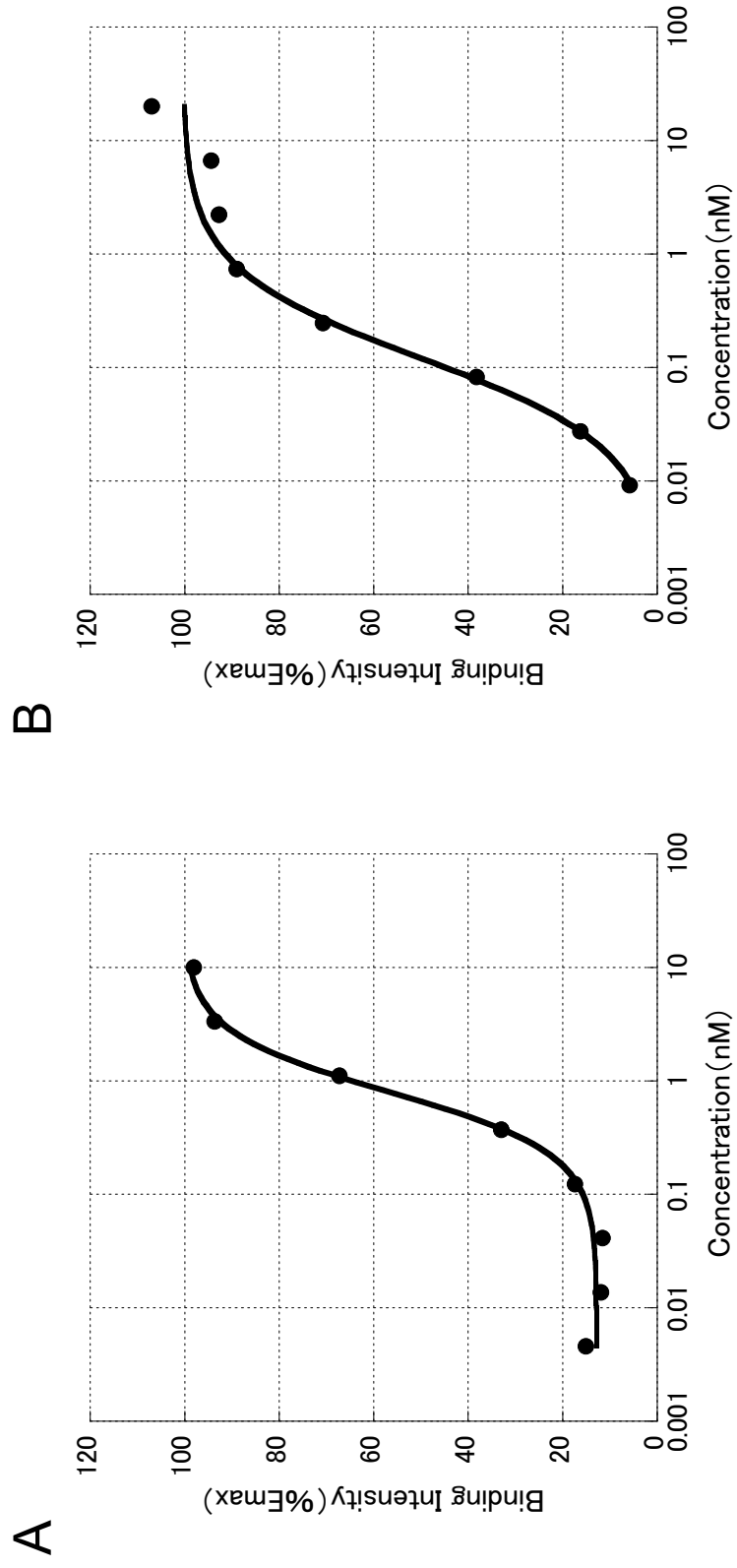


Fig. 8-2

C

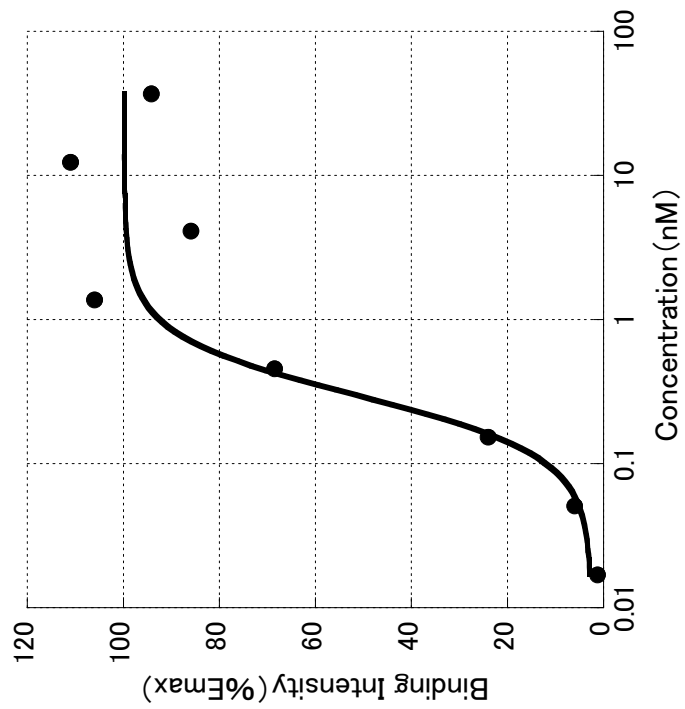


Fig. 9-1

A

Linear 15 mer lib	ZPZP lib
N-XXXXXXXXXXXXXXXXX-C	N-XXXXXXXXZPZPXXXXXGS-C

X : 20 amino acids based on NNS codon
Z : 6 amino acids (H, Y, W, R, Q, C) based on YRK codon

B

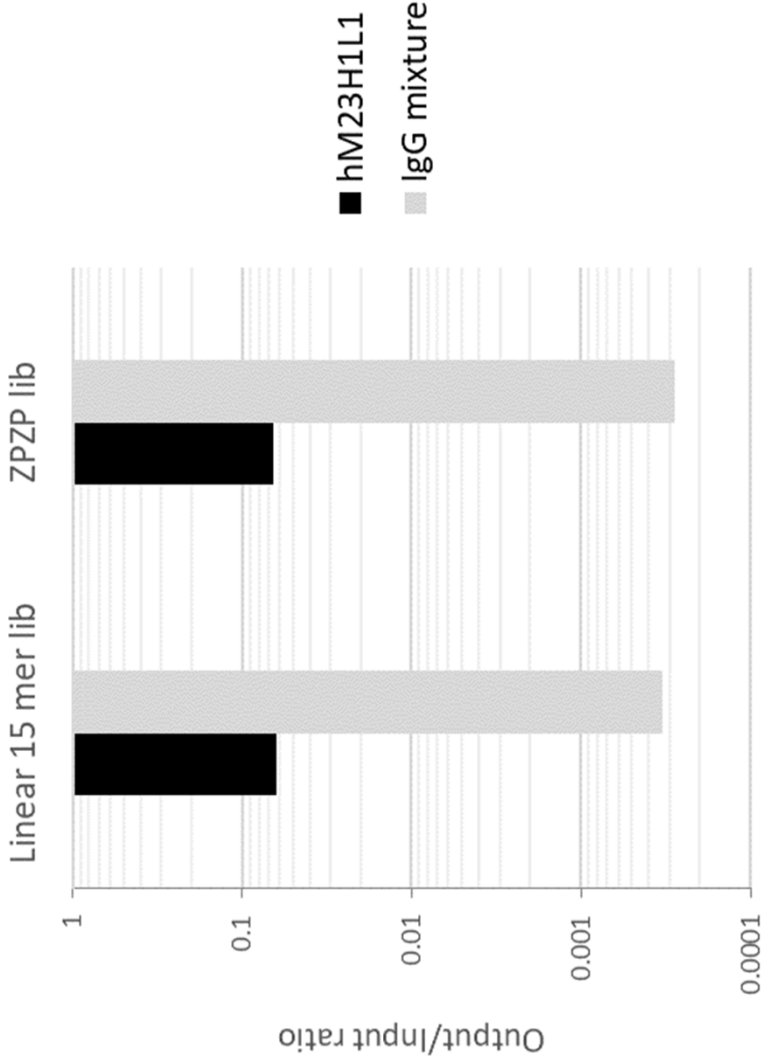
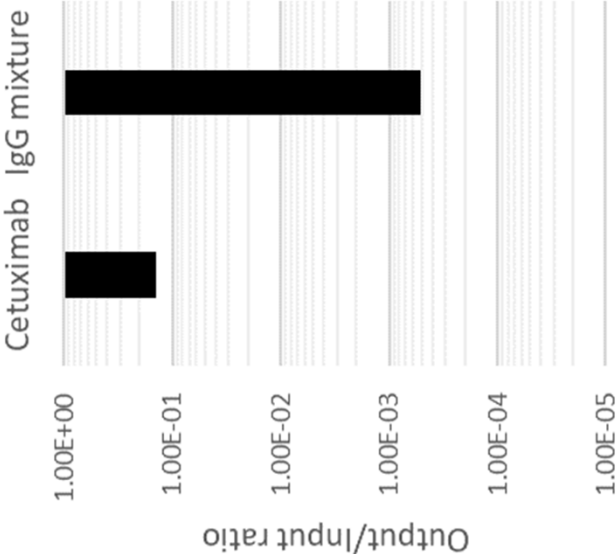


Fig. 9-2

C



D

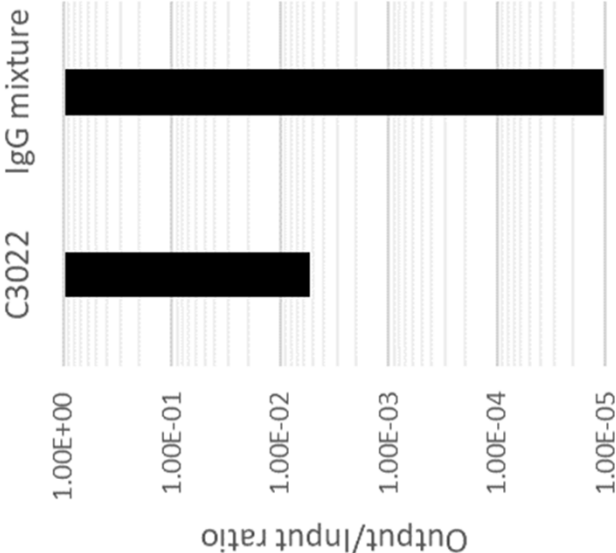


Fig. 10-1

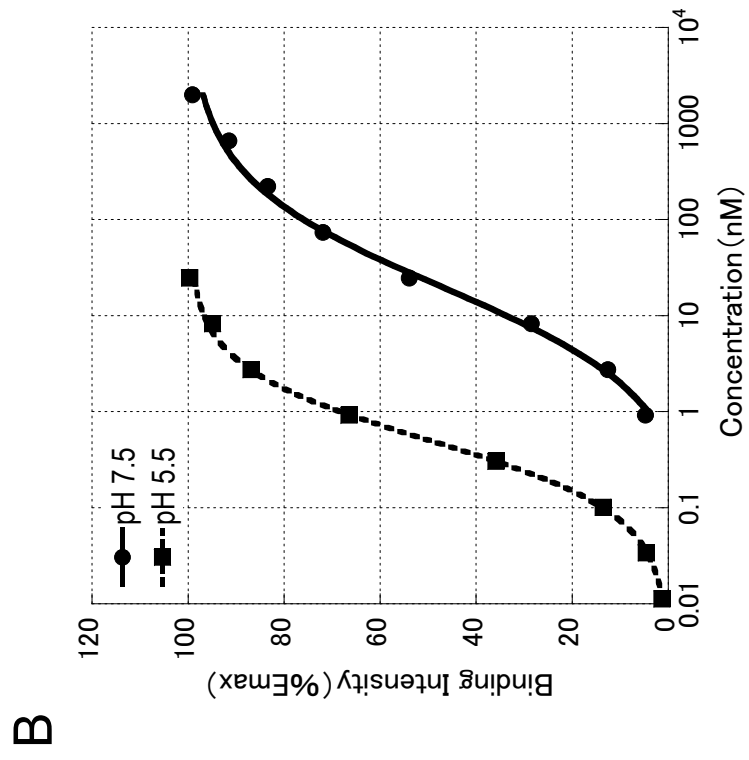
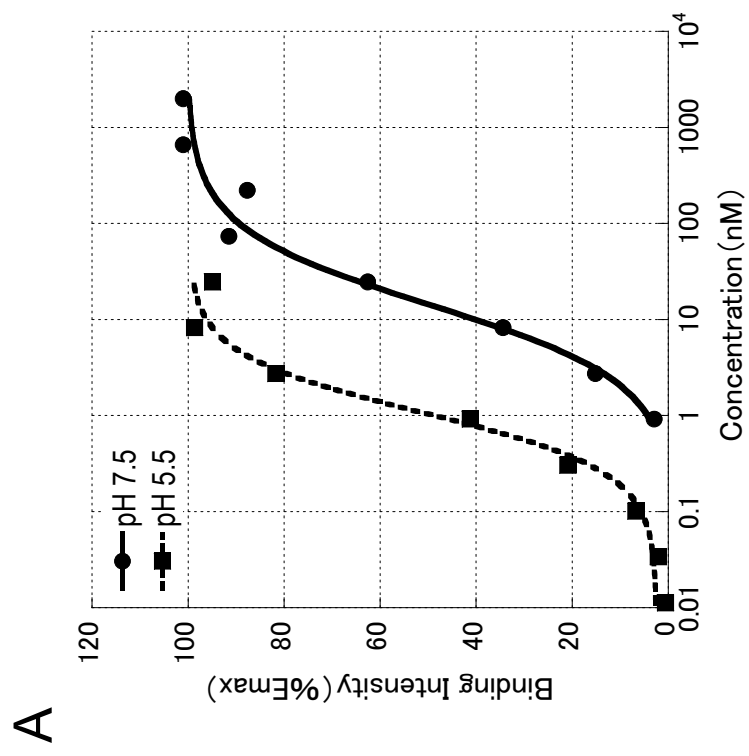


Fig. 10-2

C

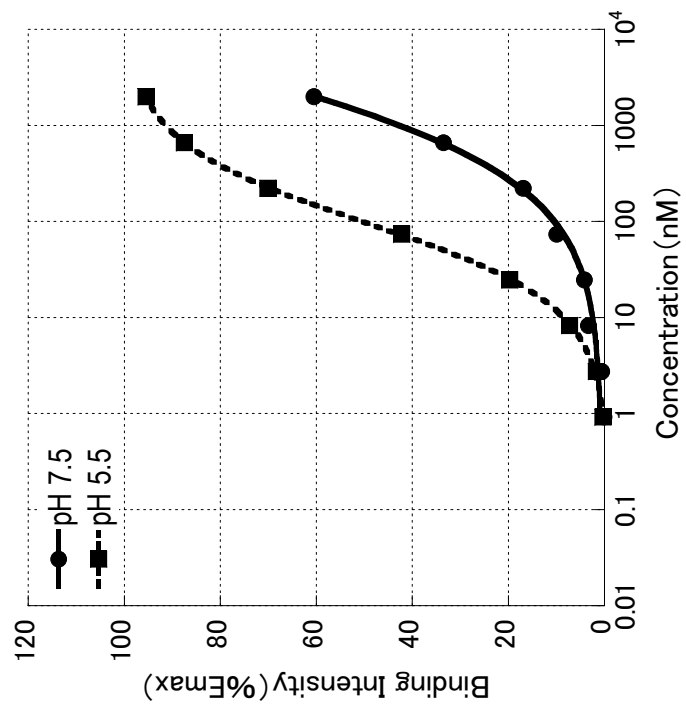


Fig. 11

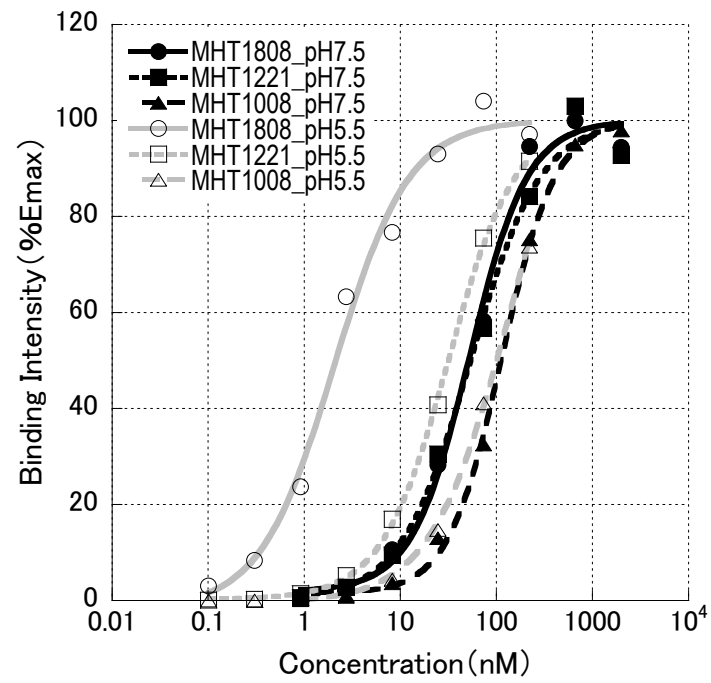
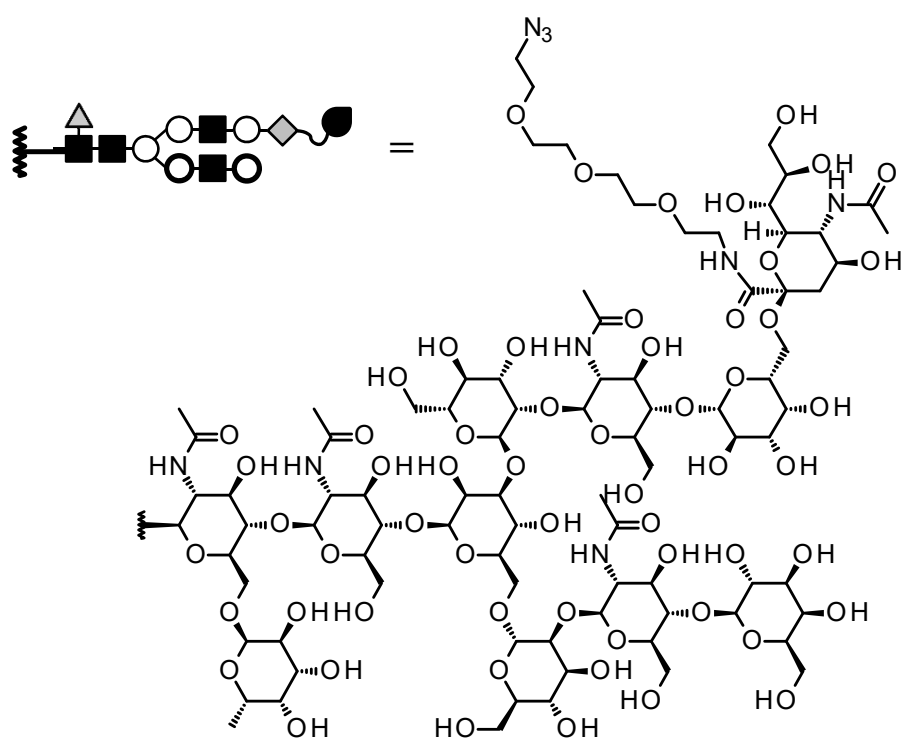
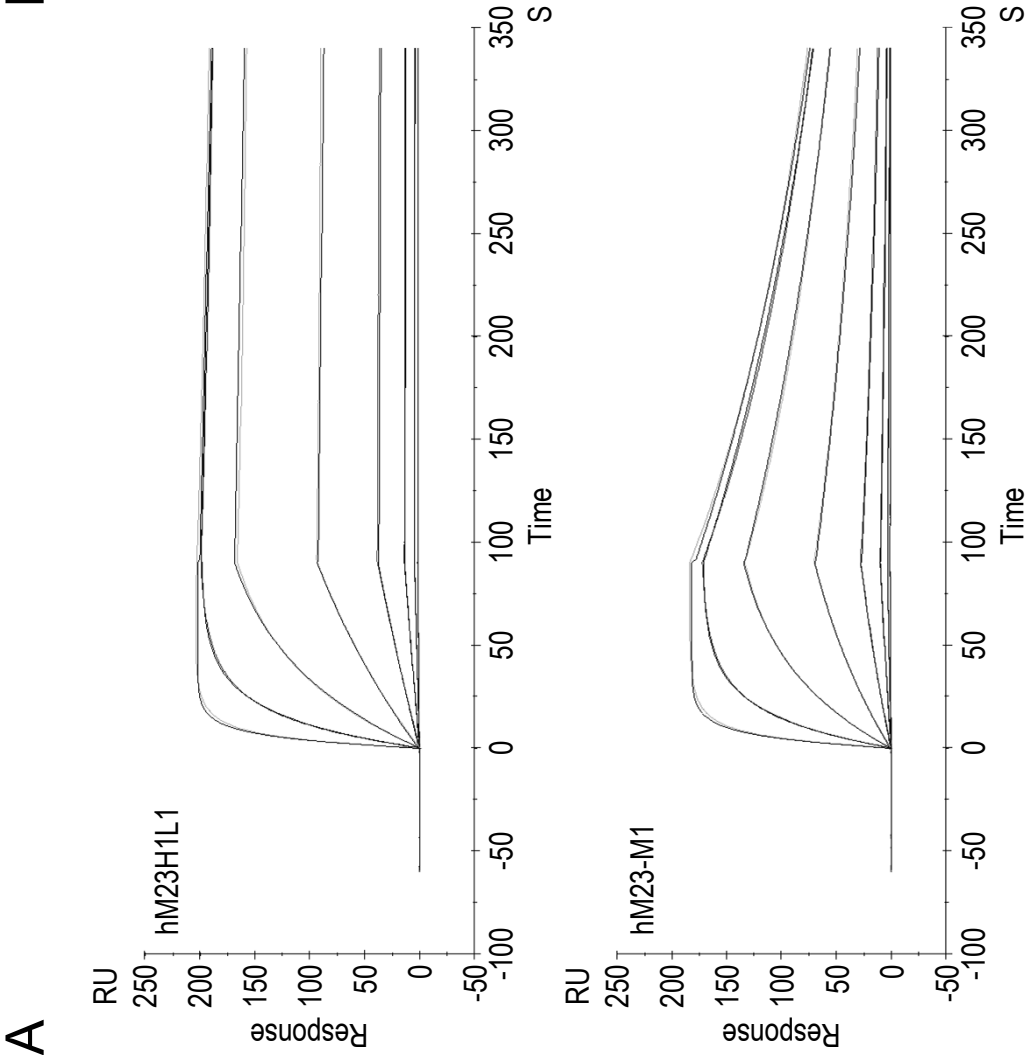


Fig. 12



Structural formula of
N297 glycan

Fig. 13



B

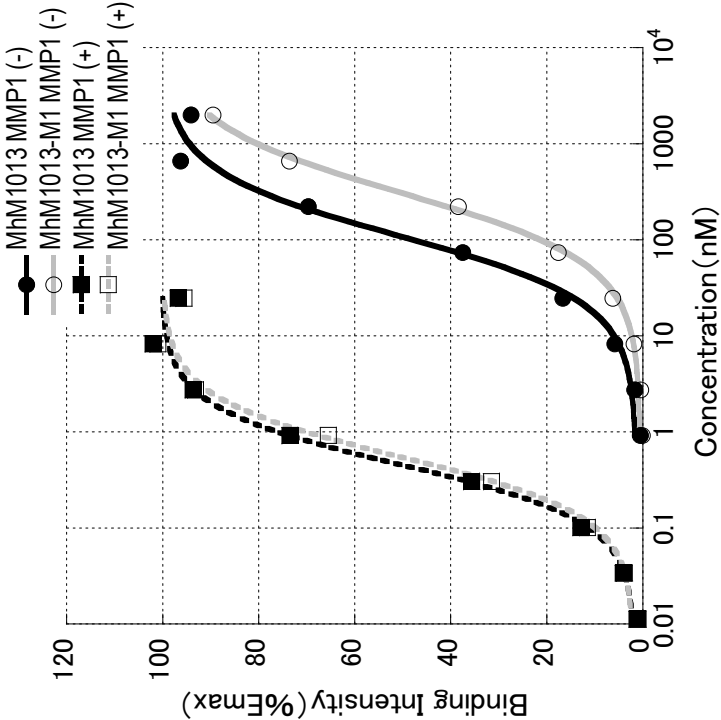


Fig. 14

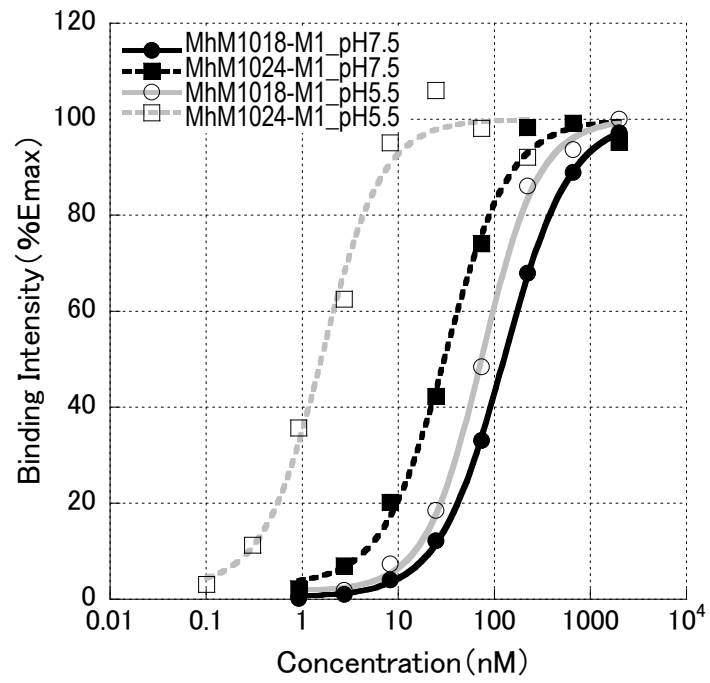


Fig. 15-1

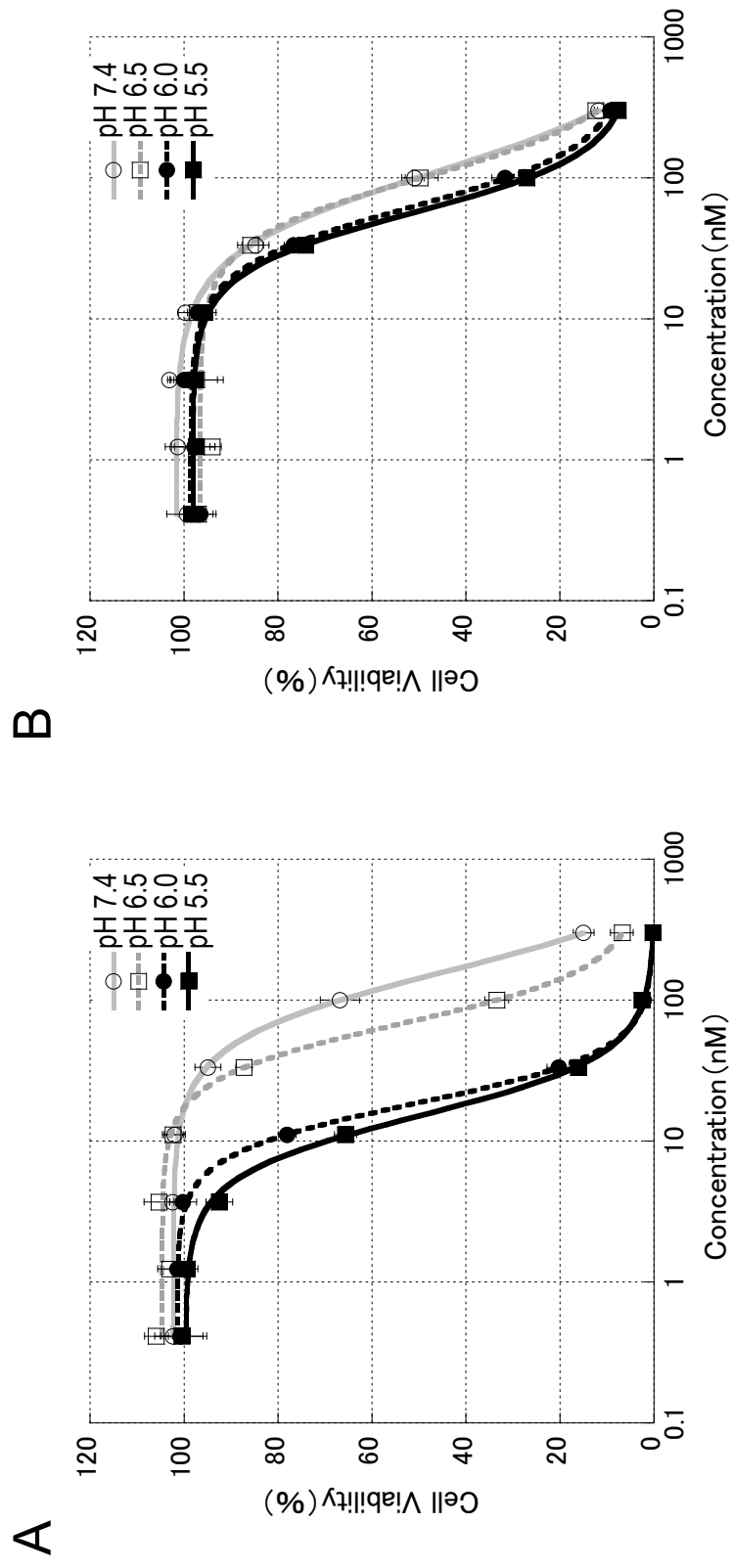


Fig. 15-2

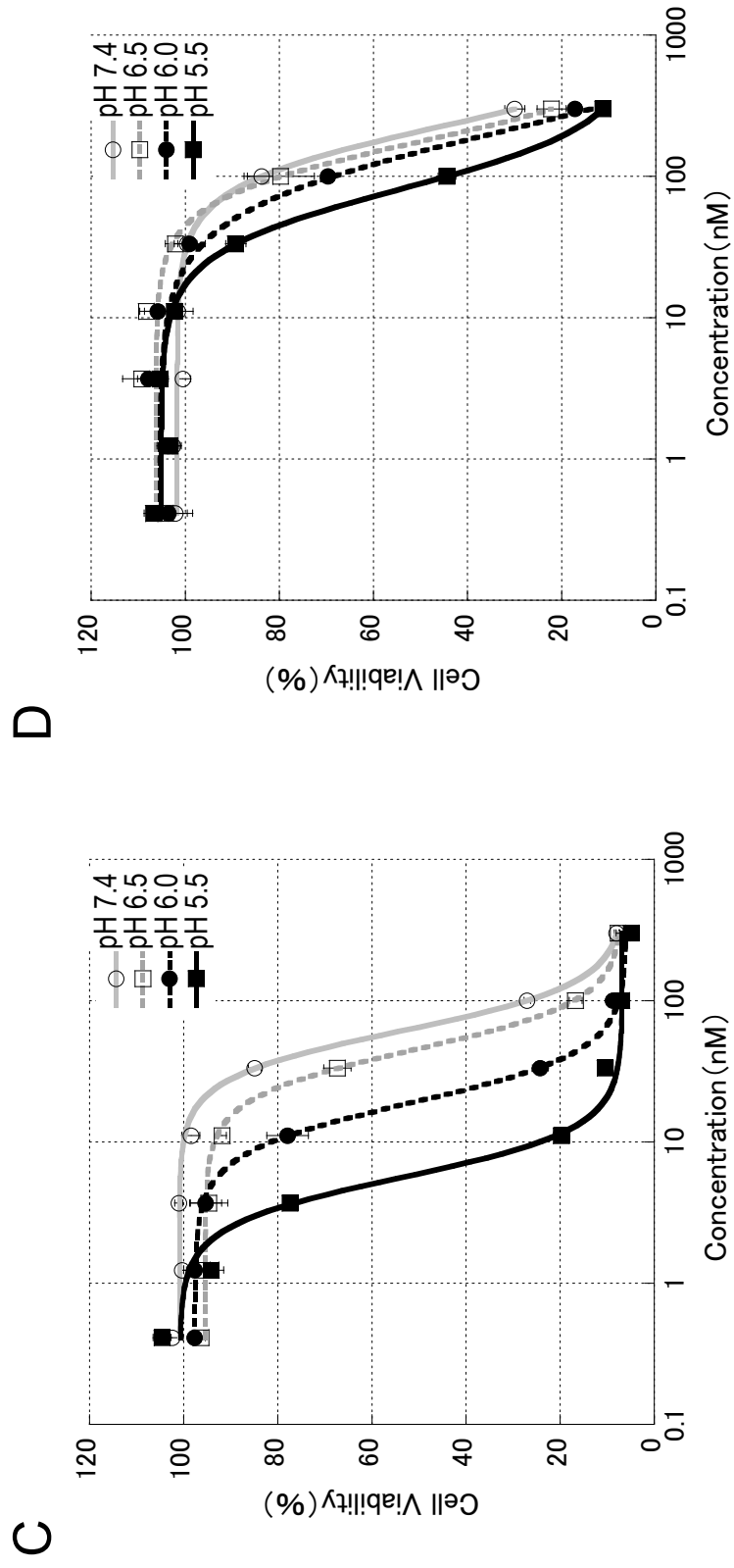


Fig. 16

Full-length amino acid sequence of HT1-11 H chain

MKHLWFFLLLVAAPRWVLSQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWV
RQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAV
YYCARSGFGSSYWYFDVWGQGTILVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCL
VKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICN
VNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDW
LNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLV
KGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFC
SVMHEALHNHYTQKSLSLSPGK

(SEQ ID NO: 1) signal sequence (1-19), antibody heavy
chain sequence (20-470)

Fig. 17

Full-length amino acid sequence of HT1-11 L chain

MVLQTQVFISLLLWISGAYGDIQMTQSPSSLSASVGDRVITITCKASQDVSTAVAWY
QQKPGKAPKLLIYSASYRYTGVPSRFSGSGSGTDFTLTISLQPEDFAVYYCQQHY
ITPLTFGQGKLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQW
KVDNALQSGNSQESVTEQDSKDSSTLSKADYEKHKVYACEVTHQGLSSP
VTKSFNRGEC

(SEQ ID NO: 2) signal sequence (1-20), antibody light
chain sequence (21-234)

Fig. 18

Full-length amino acid sequence of MHT1001

MKYLLPTAAAGLLLLLAAQPAMAAMGYLALKHPWPGLAENSGSGGGGSLVPMAMMA
SGGSDVNSQVQLVQSGAEVKKPGASVKVSCKASGYTFITTAGMQWVRQAPGQGLEWM
GWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARSFGSS
YWYFDVWGQGTLLVTVSSGGGGSGGGGSGGGGSDIQMTQSPSSLSASVGDRVITCK
ASQDVSTAVAWYQQKPGKAPKLLIYSASYRYTGVPSSRFSGSGSGTDFTLTISLQP
EDFAVYYCQQHYITPLTFGQGTKLEIKRGAPSGDYKDDDDKGAHHHHHHH

(SEQ ID NO: 3) signal sequence (1-23), mimotope peptide
(24-40), MMP cleavable linker (41-60), HT1-11-scFv-
HL(65-308), FLAG-His tag (309-331)

Fig. 19

Full-length amino acid sequence of MHT1002

MKYLLPTAAAGLLLLLAAQPAMAAMGYLALKHPWPGLAENSGSGGGGSVLVPMAMMA
SGGSDVNSDIQMTQSPSSLSASVGDRVITITCKASQDVSTAVAWYQQKPGKAPKLLI
YSASYRYTGVPSRFSGSGSGTDFTLTISSLQPEDFAVYYCQQHYITPLTFGQGTKL
EIKRGGGGSGGGSGGGGSQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWV
RQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAV
YYCARSGFGSSYWYFDVWGQGTLVTVSSGAPSGDYKDDDDKGAAAHHHHHH
(SEQ ID NO: 4) signal sequence (1-23), mimotope peptide
(24-40), MMP cleavable linker (41-60), HT1-11-scFv-
LH(65-308), FLAG-His tag (309-331)

Fig. 20

Full-length amino acid sequence of HT1-11-scFv-HL
MKYLLPTAAAGLLLLLAAQPAMAADVNSQVQLVQSGAEVKKPGASVKVSCKASGYTF
TTAGMQWVRQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSS
LKSEDTAVYYCARSGFGSSYWFYFDVWGQGTILVTVSSGGGGSGGGGSGGGGSDIQMT
QSPSSLSASVGDRVTITCKASQDVSTAVAWYQQKPGKAPKLLIYSASYRYTGVPSR
FSGSGSGTDFTLTISLQPEDFAVYYCQQHYITPLTFGQGTKLEIKRGAPSGDYKD
DDDKGAAAHHHHHH

(SEQ ID NO: 5) signal sequence (1-23), HT1-11-scFv-
HL(28-271), FLAG-His tag (272-294)

Fig. 21

Full-length amino acid sequence of HT1-11-scFv-LH
MKYLLPTAAAGLLLLLAAQPAMAADVNSDIQMTQSPSSLSASVGDRVITITCKASQDV
STAVAWYQQKPGKAPKLLIYSASYRYTGVPSTRFSGSGSGTDFTLTISLQPEDFAV
YYCQQHYITPLTFGQGTKLEIKRGGGSGGGGSGGGGSQVQLVQSGAEVKKPGASV
KVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADT
STSTAYLQLSSLKSEDTAVYYCARSFGSSYWFVDVWGQGTLLTVSSGAPSGDYKD
DDDKGAAAHHHHHH

(SEQ ID NO: 6) signal sequence (1-23), HT1-11-scFv-
LH(28-271), FLAG-His tag (272-294)

Fig. 22

Full-length amino acid sequence of MHT1007 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAENSGSGGGGSVLVPMAMMASGGSQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFYFDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 7) signal sequence (1-19), mimotope peptide
(20-35), MMP cleavable linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 23

Full-length amino acid sequence of MHT1008 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAENSGSGGGSGGGSGGGSGGGSQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 8) signal sequence (1-19), mimotope peptide
(20-35), uncleavable linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 24

Full-length amino acid sequence of MHT1009 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAENSGSGSGSGSGRSANAILEGGSQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 9) signal sequence (1-19), mimotope peptide
(20-35), uPA cleavable linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 25

Full-length amino acid sequence of MHT1803 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAEHHHSGGGSGGGSGGGSGHHHQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 10) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 26

Full-length amino acid sequence of MHT1804 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGSGHHHSGGGGSHHHGSGGSQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 11) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 27

Full-length amino acid sequence of MHT1805 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAENSGSGGGGSHHHHSGGGGSGGSQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 12) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 28

Full-length amino acid sequence of MHT1806 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAEHHHSGGGGSHHHHSGGGGSHHHQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 13) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 29

Full-length amino acid sequence of MHT1808 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGGGGSGHHHGGHHHGGHHHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHS
GVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARGSGFGSSYWFVDVW
GQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSQSVSMHEALHNHYTQKSLSL
SPGK

(SEQ ID NO: 14) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-508)

Fig. 30

Full-length amino acid sequence of MHT1809 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGGGGSHHGGHHGGHHGGHHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHS
GVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARGSGFGSSYWFYFDVW
GQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWFYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQSVMSHEALHNHYTQKSLSL
SPGK

(SEQ ID NO: 15) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-508)

Fig. 31

Full-length amino acid sequence of MHT1810 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGGGGGHGHGHGHGHGHGHGHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGGGLEWMGWINTHS
GVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARGSGFGSSYWFVDVW
GQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSQSVMEALHNHYTQKSLSL
SPGK

(SEQ ID NO: 16) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-508)

Fig. 32

Full-length amino acid sequence of MHT1811 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLAENSGGGSGGGSGHHHGGHHHGGH
HHGSPLGLWAGGSQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQ
GLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARS
GFGSSYWYFDVWGQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFP
EPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPS
NTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVV
VDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEY
KCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPS
DIAVEWESNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQCSVMHEA
LHNHYTQKSLSLSPGK

(SEQ ID NO: 17) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive + MMP cleavable linker (36-69),
antibody heavy chain sequence (70-520)

Fig. 33

Full-length amino acid sequence of MHT1817 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGGGGSGHHHGGHDHGGHHHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHS
GVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARSGFGSSYWFYFDVW
GQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWFYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSL
SPGK

(SEQ ID NO: 18) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-508)

Fig. 34

Full-length amino acid sequence of MHT1818 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGGGGSGHDHGGHHHGGHDHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHS
GVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARGSGFGSSYWFVDVW
GQGTTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWFYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSQVMSVMEALHNHYTQKSLSL
SPGK

(SEQ ID NO: 19) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-508)

Fig. 35

Full-length amino acid sequence of MHT1819 H chain

MKHLWFFLLLVAAAPRWVLSGYLALKHPWPGLAENSGGGGSGHDHGGHDHGGHDHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGGGLEWMGWINTHS
GVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTAVYYCARGSGFGSSYWFVDVW
GQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWFYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQP
ENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSQSVSMHEALHNHYTQKSLSL
SPGK

(SEQ ID NO: 20) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-508)

Fig. 36

Full-length amino acid sequence of hM23H1L1 H chain
MKHLWFFLLLVAAAPRWVLSQVQLVQSGAEVKKPGASVKVSCKASGYAFSNIYLIQWV
RQAPGQGLEWMGVINPGSGVTNYNEKFKGRVTITADTSTSTAYMELSSLRSEDYAV
YYCARAEAWFAYWGQGTLLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF
PEPVTFSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKP
SNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKE
YKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYP
SDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQVMHE
ALHNHYTQKSLSLSPGK
(SEQ ID NO: 21) signal sequence (1-19), antibody heavy
chain sequence (20-465)

Fig. 37

Full-length amino acid sequence of hM23H1L1 L chain
MVLQTQVFISLLLWISGAYGDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQK
NYLAWYQQKPGQPPKLLIYWASTRESGVPDRFSGSGSGTDFTLTISLQAEDVAVY
YCQRYYGYPWTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPR
EAKVQWKVDNALQSGNSQESVTEQDSKDSSTLSKADYEKHKVYACEVTH
QGLSSPVTKSFNRGEC
(SEQ ID NO: 22) signal sequence (1-20), antibody light
chain sequence (21-240)

Fig. 38

Full-length amino acid sequence of Cetuximab H chain
MKHLWFFLLLVAAPRWVLSQVQLKQSGPGLVQPSSLSITCTVSGFSLTNYGVHWV
RQSPGKGLEWLGVIWSSGGNTDYNTPTFTSRLSINKDNSKSQVFFKMNSLQSNDAIY
YCARALTYDYEFAYWGQGLVTVSAASTKGPSVFPLAPSSKSTSGGTAALGCLVK
DYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVN
HKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEV
TCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLN
GKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKG
FYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFV
MHEALHNHYTQKSLSLSPGK
(SEQ ID NO: 23) signal sequence (1-19), antibody heavy
chain sequence (20-468)

Fig. 39

Full-length amino acid sequence of Cetuximab L chain
MVLQTQVFISLLLWISGAYGDILLTQSPVILSVSPGERVSFSCRASQSIGTNIHWY
QQRNGSPRLLIKYASESISGIPSRFSGSGSGTDFTLSINSVESEDIADYYCQQNN
NWPTTFGAGTKLELKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQW
KVDNALQSGNSQESVTEQDSKDSSTLSKADYEKHKVYACEVTHQGLSSP
VTKSFNRGEC
(SEQ ID NO: 24) signal sequence (1-20), antibody light
chain sequence (21-234)

Fig. 40

Full-length amino acid sequence of C3022 H chain

MKHLWFFLLLVAAPRWVLSQVQLVQSGAEVKKPGASVKVSCKASGYTFTGYMHVW
RQAPGQGLEWMGRINPNSGGTNYAQKFQGRVTMTRDTSISTAYMELSGLRSDDTAV
YYCASGSVRHPWGQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFP
EPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPS
NTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVV
VDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEY
KCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPS
DIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEA
LHNHYTQKSLSLSPGK

(SEQ ID NO: 25) signal sequence (1-19), antibody heavy
chain sequence (20-464)

Fig. 41

Full-length amino acid sequence of C3022 L chain

MVLQTQVFISLLLWISGAYGQPVLTQPPSASGTPGQRVTISCSGSRSNIGGNIVSW
YQQFPGTAPRLLTYADNQRPSGVPDRFSGSKSGTSASLAISGLQSEDEADYYCAAW
DDSLNGVVFFGGTKLTVLGQPKAAPSVTLFPPSSEELQANKATLVCLISDFYPGAV
TVAWKADSSPVKAGVETTTPSKQSNNKYAASSYLSLTPEQWKSHRSYSCQVTHEGS
TVEKTVAPTECS

(SEQ ID NO: 26) signal sequence (1-20), antibody light
chain sequence (21-236)

Fig. 42

Full-length amino acid sequence of MhM8001 L chain
MVLQTQVFISLLLWISGAYGGENMWNDLDLVPLGILGGGSGHHHGHHHGHHHG
GSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLI
YWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGTKV
EIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNFPREAKVQWKVDNALQSGNSQ
ESVTEQDSKDSSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 27) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-58), antibody light
chain sequence (59-278)

Fig. 43

Full-length amino acid sequence of MCE-2101 L chain
MVLQTQVFISLLLWISGAYGMGLMHMEKSRSWYLSRQGGGGSGHHHGHHHGHHH
GGSDILLTQSPVILSVSPGERVSFSCRASQSIGTNIHWYQQRTNGSPRLLIKYASE
SISGIPSRFSGSGSGTDFTLSINSVESEDIADYYCQQNNNWPTTFGAGTKLELKRT
VAAPSVFIFPPSDEQLKSGTASVVCLLNMFYPREAKVQWKVDNALQSGNSQESVTE
QDSKDSITYSLSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 28) signal sequence (1-20), mimotope peptide
(21-37), pH-responsive linker (38-59), antibody light
chain sequence (60-273)

Fig. 44

Full-length amino acid sequence of MC3-9001 H chain
MKHLWFFLLLVAAPRWVLSGETMSVFTRDYFTETPGGGGSGHHHGGHHHGGHHHGG
SQVQLVQSGAEVKKPGASVKVSCKASGYTFTGYMHWVRQAPGQGLEWMGRINPNS
GGTNYAQKFQGRVTMTRDTSISTAYMELSGLRSDDTAVYYCASGSVRHPWGQGTILV
TVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHT
FPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHT
CPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDG
VEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTIS
KAKGQPREPQVYITLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKT
TPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
(SEQ ID NO: 29) signal sequence (1-19), mimotope peptide
(20-35), pH-responsive linker (36-57), antibody heavy
chain sequence (58-502)

Fig. 45

Full-length amino acid sequence of MHT1221 H chain

MKHLWFFLLLVAAPRWVLSGYLALKHPWPGLASGSGSGGGGSGGGGSGGGGSGGSQ
VQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQWVRQAPGQGLEWMGWINTHSGV
PKYAEDFKGRVTISADTSTSTAYLQLSSLKSED TAVYYCARS GFGSSYWFVDVWGQ
GTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCD
KTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNW
YVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIE
KTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSP
GK

(SEQ ID NO: 30) signal sequence (1-19), mimotope peptide
(20-35), uncleavable linker (36-55), antibody heavy
chain sequence (56-506)

Fig. 46

Full-length amino acid sequence of hM23-M1 H chain
MKHLWFFLLLVAAAPRWVLSQVQLVQSGAEVKKPGASVKVSCKASGAAFSNYLIEWV
RQAPGQGLEWMGVINPGSGVTNYNEKFKGRVTITADTSTSTAYMELSSLRSEDVAV
YYCARAEAWFAYWGQGTILVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF
PEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKP
SNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKE
YKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYP
SDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSVSMHE
ALHNHYTQKSLSLSPGK
(SEQ ID NO: 31) signal sequence (1-19), antibody heavy
chain sequence (20-465)

Fig. 47

Full-length amino acid sequence of hM23-M1 L chain

MVLQTQVFISLLLWISGAYGDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQK
NYLAWYQQKPGQPPKLLIYWASTRESGVPDRFSGSGSGTDFTLTISLQAEDVAVY
YCQRYYGYPWTFGQGTKVEIKRAVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPR
EAKVQWKVDNALQSGNSQESVTEQDSKDSSTLSKADYEKHKVYACEVTH
QGLSSPVTKSFNRGEC

(SEQ ID NO: 32) signal sequence (1-20), antibody light
chain sequence (21-240)

Fig. 48

Full-length amino acid sequence of MhM1013 L chain
MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGSGGGGSVLVPMAMMASGGS
DIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLIYW
ASTRESGVDPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGTKVEI
KRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQES
VTEQDSKDSSTLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 33) signal sequence (1-20), mimotope peptide
(21-36), MMP cleavable linker (37-56), antibody light
chain sequence (57-276)

Fig. 49

Full-length amino acid sequence of MhM1018-M1 L chain
MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGSGGGGSGGGGSGGGGSGGS
DIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLIYW
ASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGTKVEI
KRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQES
VTEQDSKDSSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 34) signal sequence (1-20), mimotope peptide
(21-36), uncleavable linker (37-56), antibody light
chain sequence (57-276)

Fig. 50

Full-length amino acid sequence of MhM1024-M1 L chain
MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGHHHGHHHGHHHG
GSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLI
YWASTRESGVPDRFSGSGGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGTKV
EIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNFPREAKVQWKVDNALQSGNSQ
ESVTEQDSKDSSTLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 35) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-58), antibody light
chain sequence (59-278)

Fig. 51

Full-length amino acid sequence recognized by human uPA
and serving as substrate therefor

SGRSANAILE (SEQ ID NO: 36)

SGRSANA (SEQ ID NO: 37)

SGRSA (SEQ ID NO: 38)

Full-length amino acid sequence recognized by human MMP1
and serving as substrate therefor

VLVPMAMMAS (SEQ ID NO: 39)

PLGLWA (SEQ ID NO: 40)

Full-length amino acid sequence recognized by human MMP9
and serving as substrate therefor

PLGLAG (SEQ ID NO: 41)

Fig. 52

Full-length amino acid sequence of second peptide

GGGSHHGGHHGGHHGGHHGGS (SEQ ID NO: 42)

GGGGSHHGGHRHGGHHKGGHHGGS (SEQ ID NO: 43)

GGGSHGHGHHGHGHHGHGGS (SEQ ID NO: 44)

Fig. 53

Full-length amino acid sequence of amino terminal
peptide of human GPRC5D
MYKDCIESTGDYFLLCDAEGPWGIILE (SEQ ID NO: 45)

Fig. 54

Full-length amino acid sequence of second peptide

GSGGGGSVLVPMAMMASGGS (SEQ ID NO: 46)

GSGGGSGGGSGGGSGGS (SEQ ID NO: 47)

GSGSGSGSGRSANAILEGGS (SEQ ID NO: 48)

HHHSGGGSGGGSGGGSHHH (SEQ ID NO: 49)

GSGHHHSGGGSHHHGSGGS (SEQ ID NO: 50)

GSGGGSHHHHSGGGSGGS (SEQ ID NO: 51)

HHHSGGGSHHHHSGGGSHHH (SEQ ID NO: 52)

GGGSGHHHGHHHGHHGGS (SEQ ID NO: 53)

GGGGHGHGHHGHGHHGGS (SEQ ID NO: 54)

GGGSGGGSGHHHGHHHGHHGSPLGLWAGGS (SEQ ID NO: 55)

GGGSGHHHGHHGHDHGGHHGGS (SEQ ID NO: 56)

GGGSGHDHGGHHHGHDHGGGS (SEQ ID NO: 57)

GGGSGHDHGGHDHGGHDHGGGS (SEQ ID NO: 58)

GGGSGHHHGHHHGHHGGS (SEQ ID NO: 59)

GGGSGHHHGHHHGHHGGS (SEQ ID NO: 60)

GGGSGHHHGHHHGHHGGS (SEQ ID NO: 61)

GSGGGSGGGSGGGSGGS (SEQ ID NO: 62)

GSGSGGGSVLVPMAMMASGGS (SEQ ID NO: 63)

GSGSGGGSGGGSGGGSGGS (SEQ ID NO: 64)

GSGGGSGHHHGHHHGHHGGS (SEQ ID NO: 65)

GGGSGHHHGHRHGGHHGGS (SEQ ID NO: 66)

Fig. 55

Full-length amino acid sequence recognized by human
CAPN1 and serving as substrate therefor
PLFAAP (SEQ ID NO: 67)

Fig. 56-1

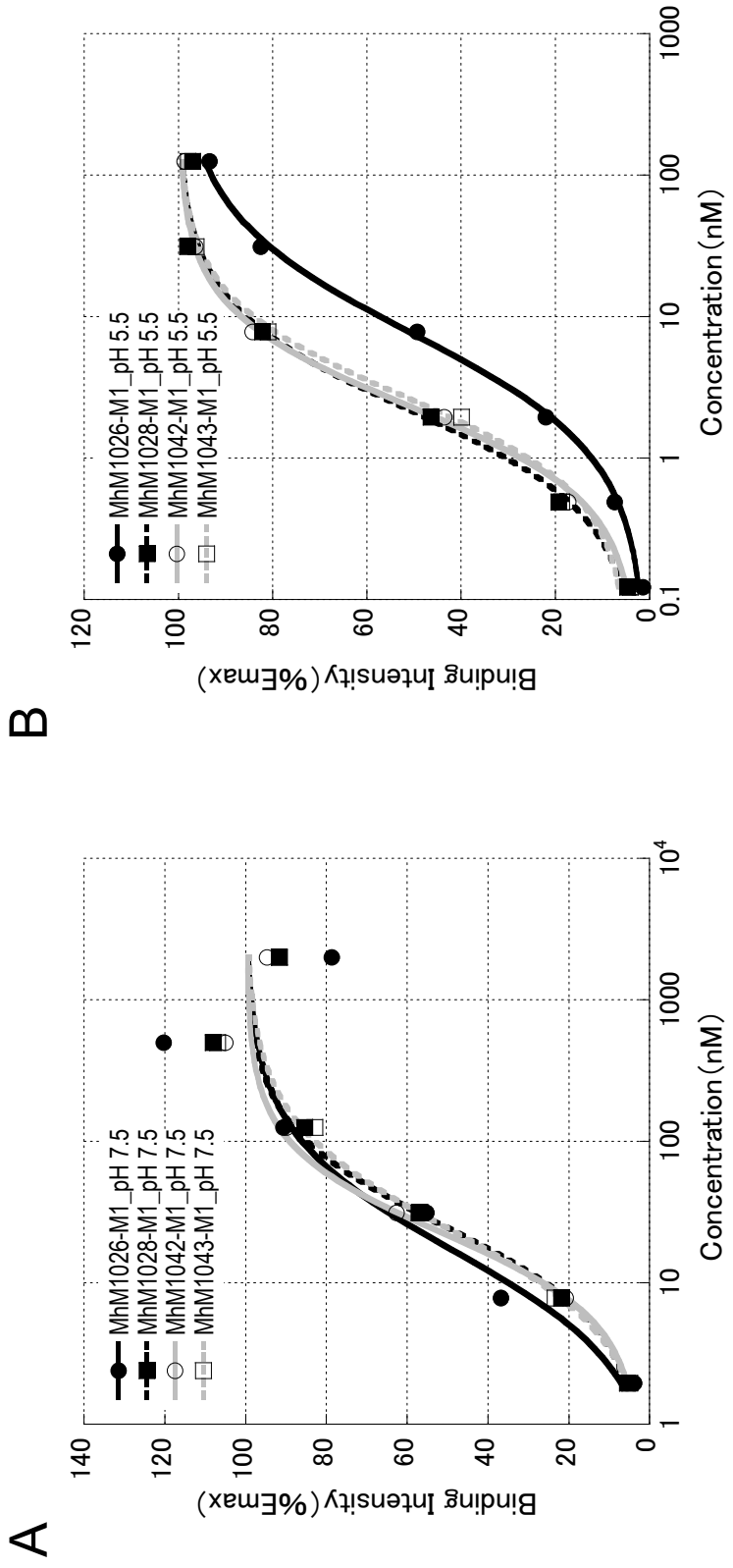


Fig. 56-2

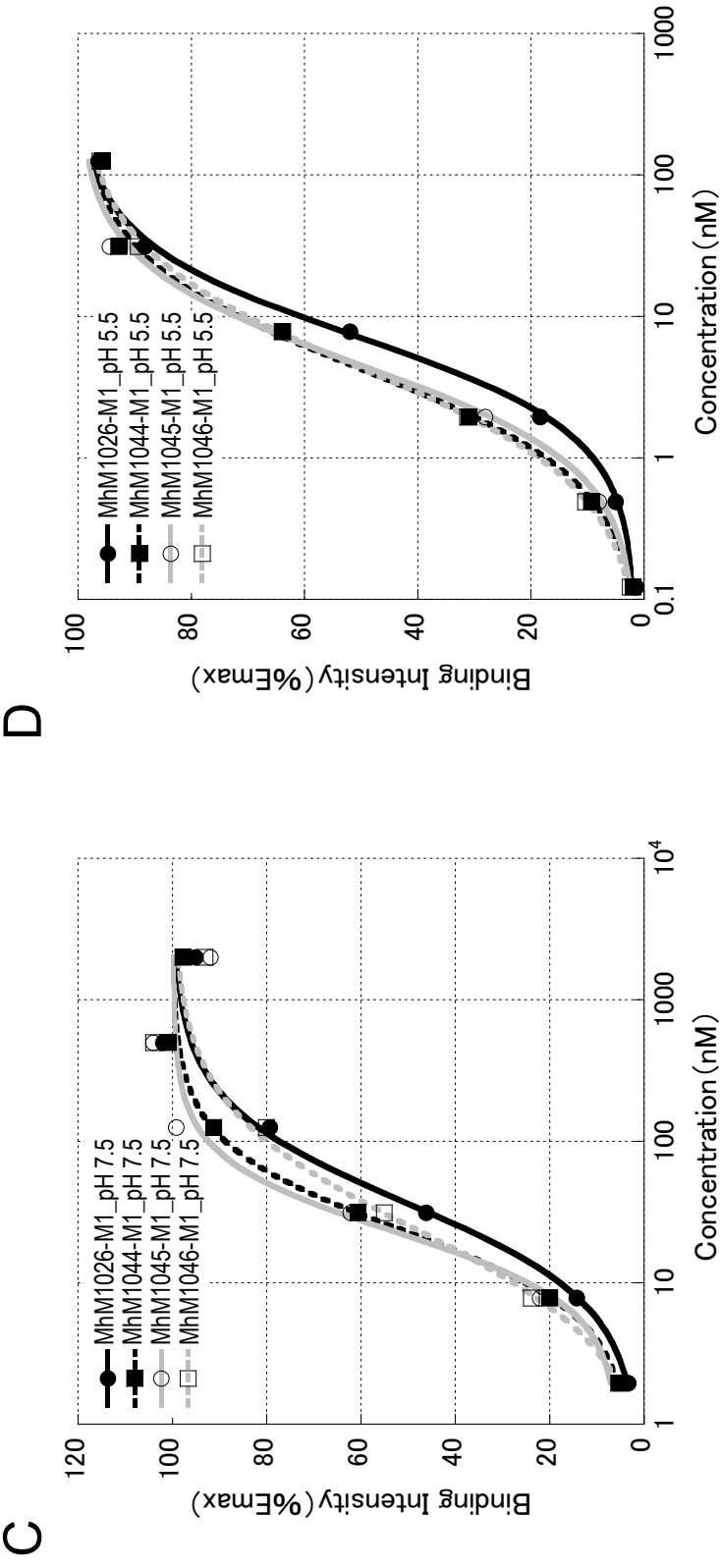


Fig. 57

Full-length amino acid sequence of MhM1026-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGGHHHGGHHHGGHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 68) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 58

Full-length amino acid sequence of MhM1028-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGGHHHGRHHHGGHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 69) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 59

Full-length amino acid sequence of MhM1042-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGRHHHGGHHHGGHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 70) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 60

Full-length amino acid sequence of MhM1043-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGGHHHGGHHHGRHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 71) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 61

Full-length amino acid sequence of MhM1044-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGGHHHGKHHHGHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 72) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 62

Full-length amino acid sequence of MhM1045-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGKHHHGGHHHGGHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 73) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 63

Full-length amino acid sequence of MhM1046-M1 light chain

MVLQTQVFISLLLWISGAYGGNFYHQYPWPLEILGSGGGGSGGGHHHGGHHHGKHH
HGGSDIVMTQSPDSLAVSLGERATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKL
LIYWASTRESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGT
KVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGN
SQESVTEQDSKDSSTLSLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO: 74) signal sequence (1-20), mimotope peptide
(21-36), pH-responsive linker (37-60), antibody light
chain sequence (61-280)

Fig. 64

Full-length amino acid sequence of second peptide

GGGGSGGGHHHGGHHHGGHHHGGGS (SEQ ID NO: 75)

GGGGSGGGHHHGRHHHGGHHHGGGS (SEQ ID NO: 76)

GGGGSGGRHHHGGHHHGGHHHGGGS (SEQ ID NO: 77)

GGGGSGGGHHHGGHHHGRHHHGGGS (SEQ ID NO: 78)

GGGGSGGGHHHKGHHHGGHHHGGGS (SEQ ID NO: 79)

GGGGSGGKHHHGGHHHGGHHHGGGS (SEQ ID NO: 80)

GGGGSGGGHHHGGHHHKGHHHGGGS (SEQ ID NO: 81)