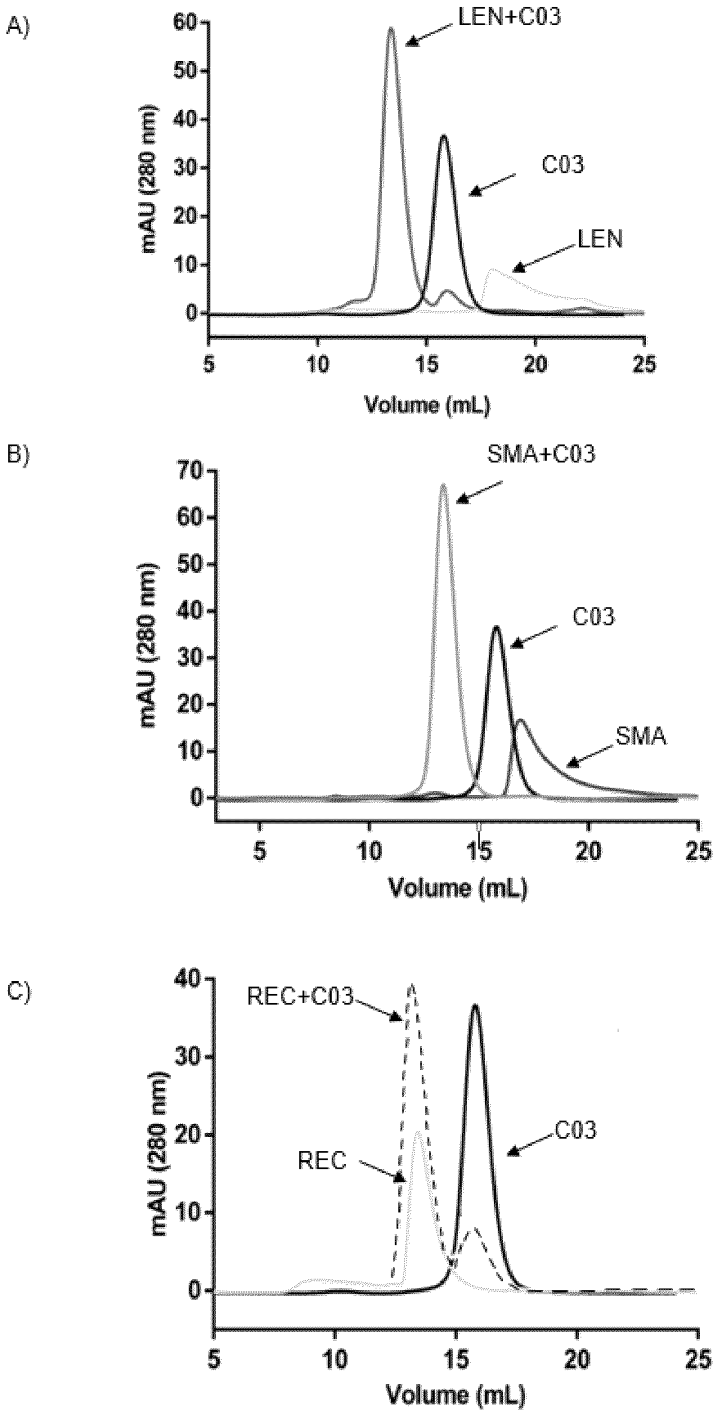

A)
LEN+C03
C03
LEN
mAU (280 nm)
Volume (mL)
B)
SMA+C03
C03
SMA
mAU (280 nm)
Volume (mL)
C)
REC+C03
REC
C03
mAU (280 nm)
Volume (mL)

Figure 1

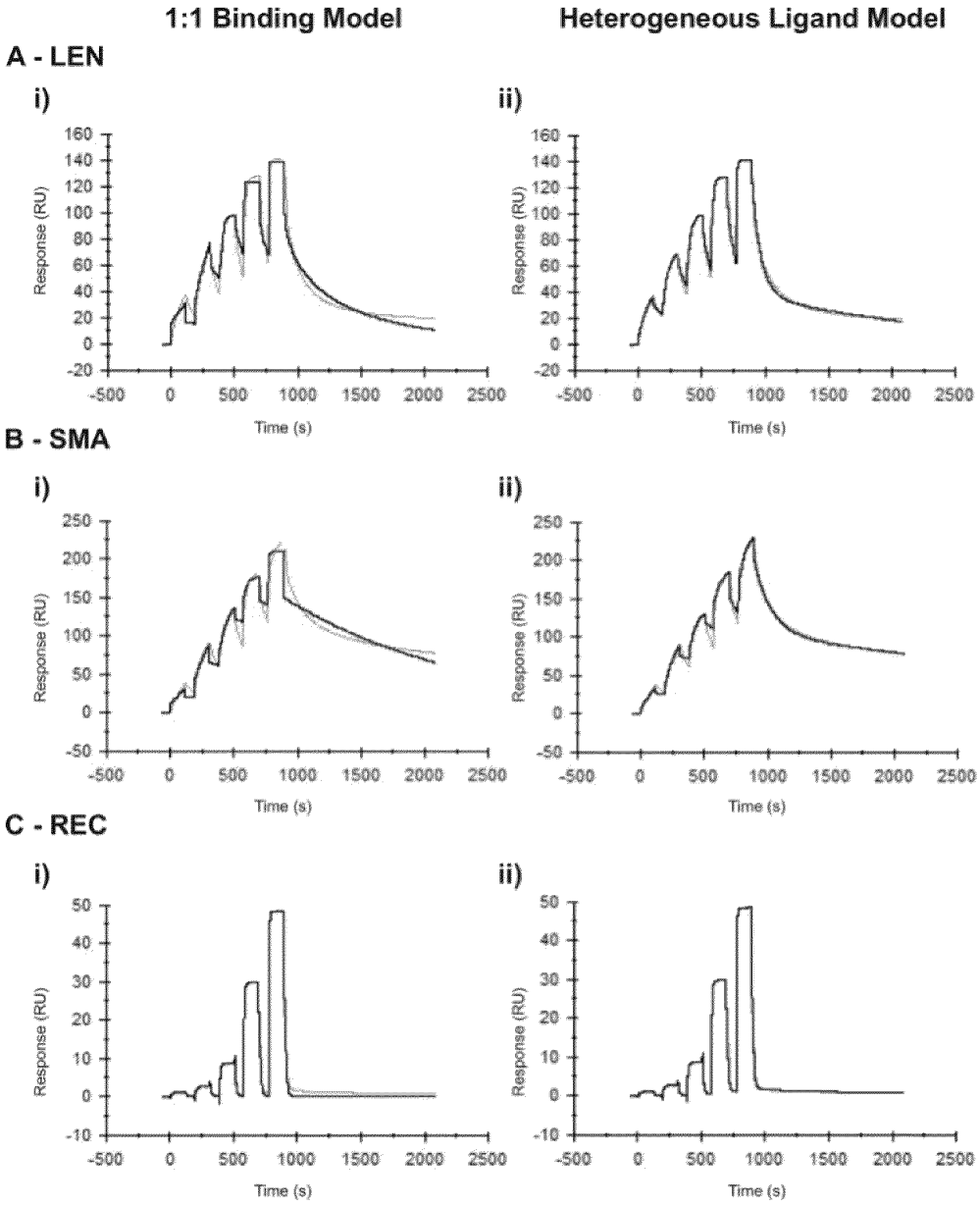

1:1 Binding Model
Heterogeneous Ligand Model
A - LEN
i)
ii)
B - SMA
i)
ii)
C - REC
i)
ii)
Response (RU)
Time (s)

Figure 2

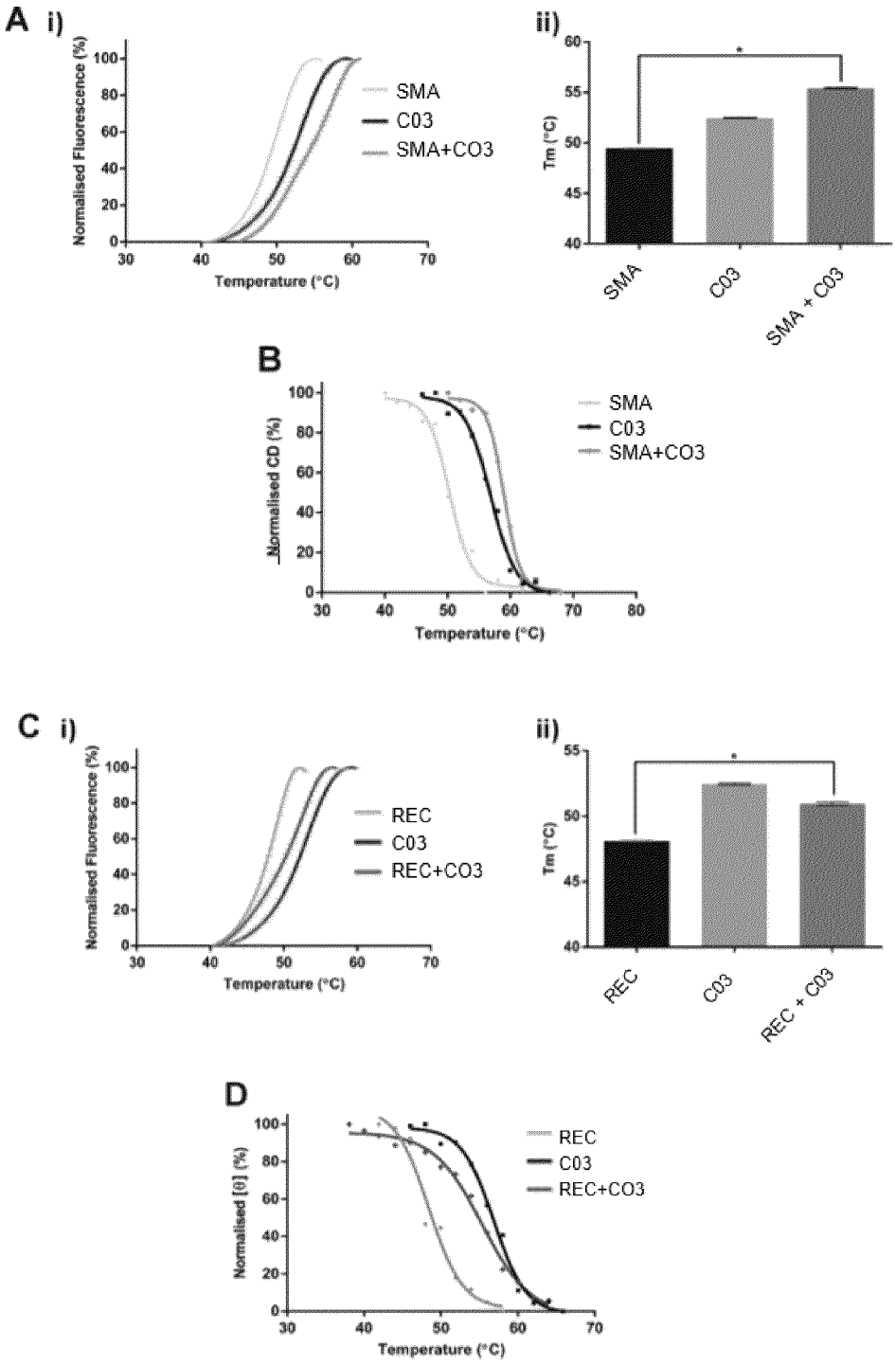

A
i)
Normalised Fluorescence (%)
Temperature (°C)
SMA
C03
SMA+CO3
ii)
Tm (°C)
SMA
C03
SMA + C03
B
Normalised CD (%)
Temperature (°C)
SMA
C03
SMA+CO3
C
i)
Normalised Fluorescence (%)
Temperature (°C)
REC
C03
REC+CO3
ii)
Tm (°C)
REC
C03
REC + C03
D
Normalised [0] (%)
Temperature (°C)
REC
C03
REC+CO3

Figure 3

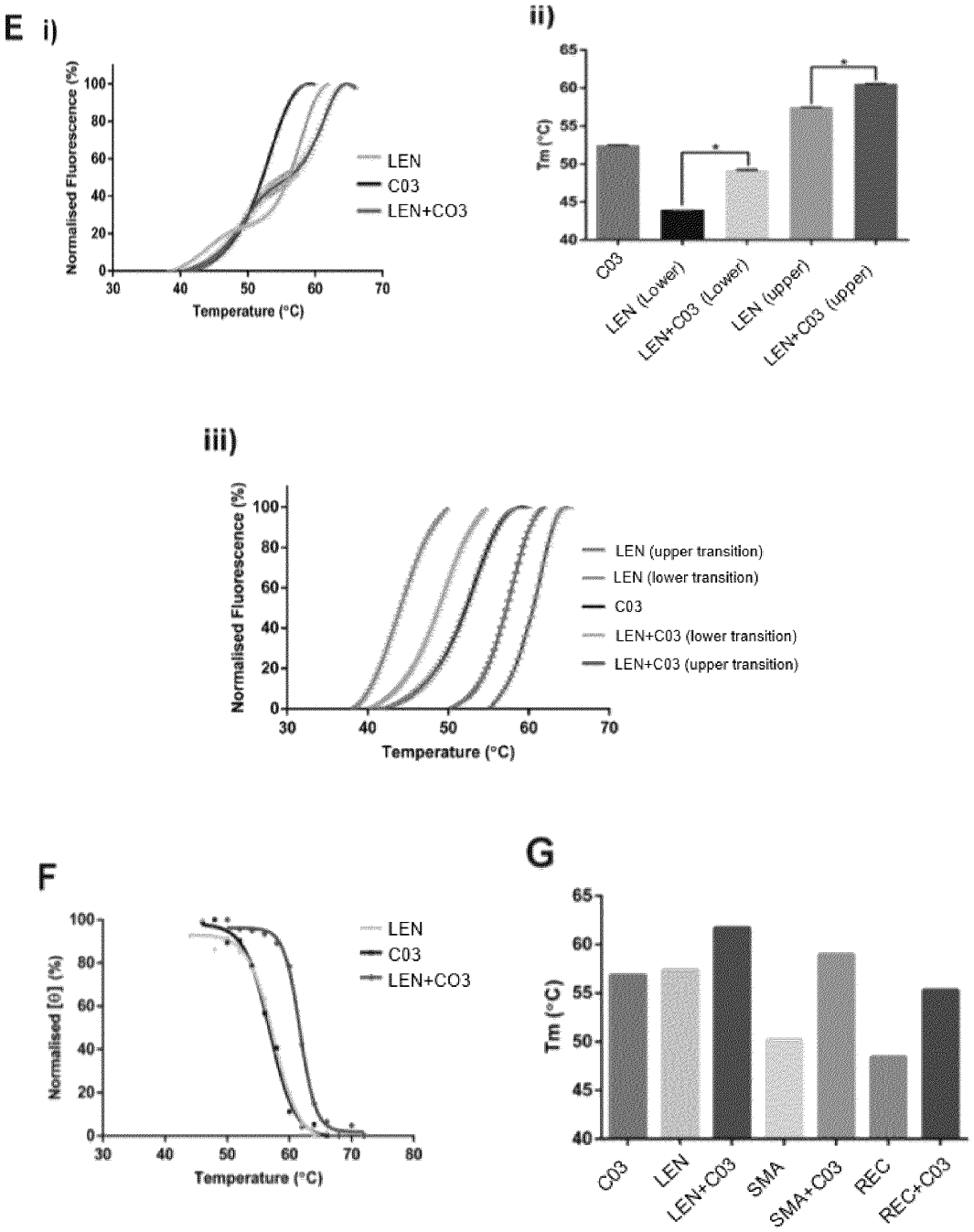


Figure 3 (Cont.)

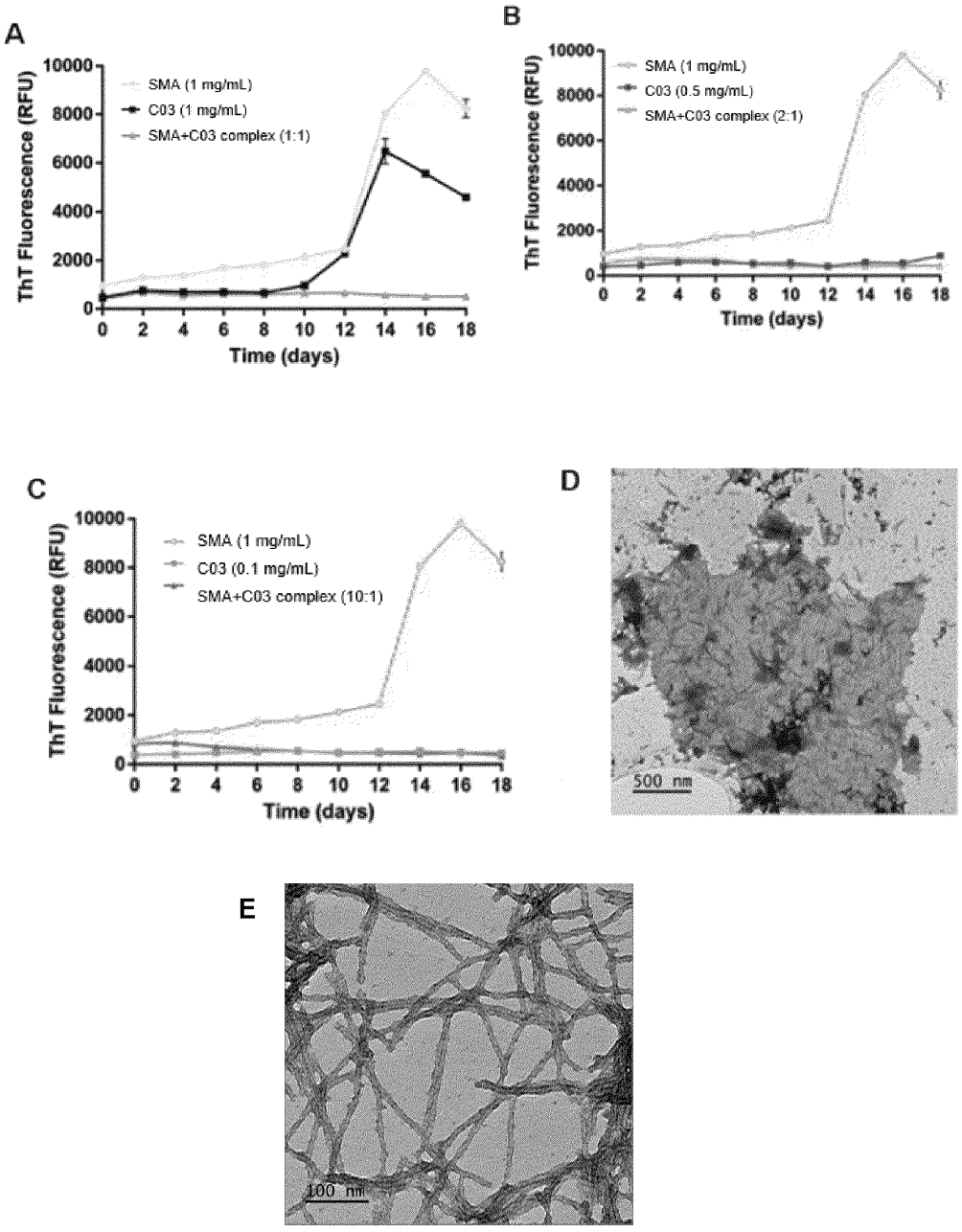

A
ThT Fluorescence (RFU)
Time (days)
SMA (1 mg/mL)
C03 (1 mg/mL)
SMA+C03 complex (1:1)
B
ThT Fluorescence (RFU)
Time (days)
SMA (1 mg/mL)
C03 (0.5 mg/mL)
SMA+C03 complex (2:1)
C
ThT Fluorescence (RFU)
Time (days)
SMA (1 mg/mL)
C03 (0.1 mg/mL)
SMA+C03 complex (10:1)
D
500 nm
E
100 nm

Figure 4

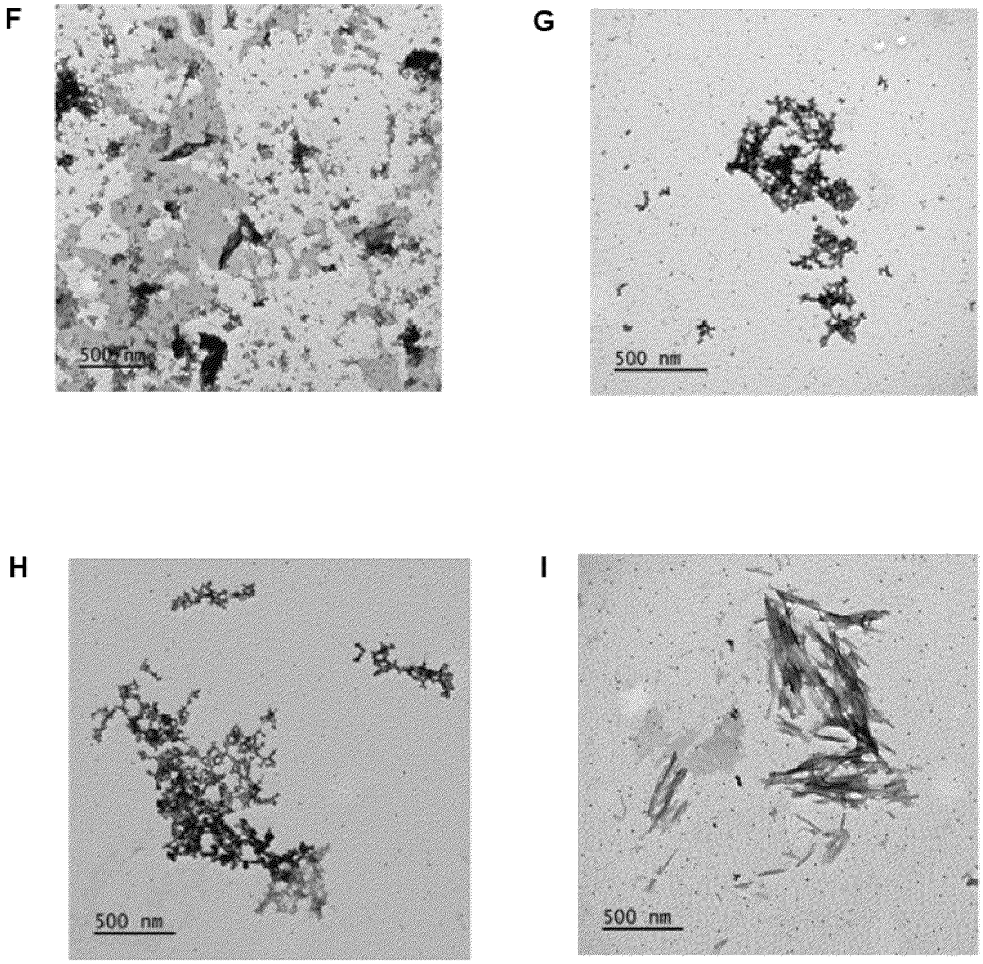


Figure 4 (Cont.)

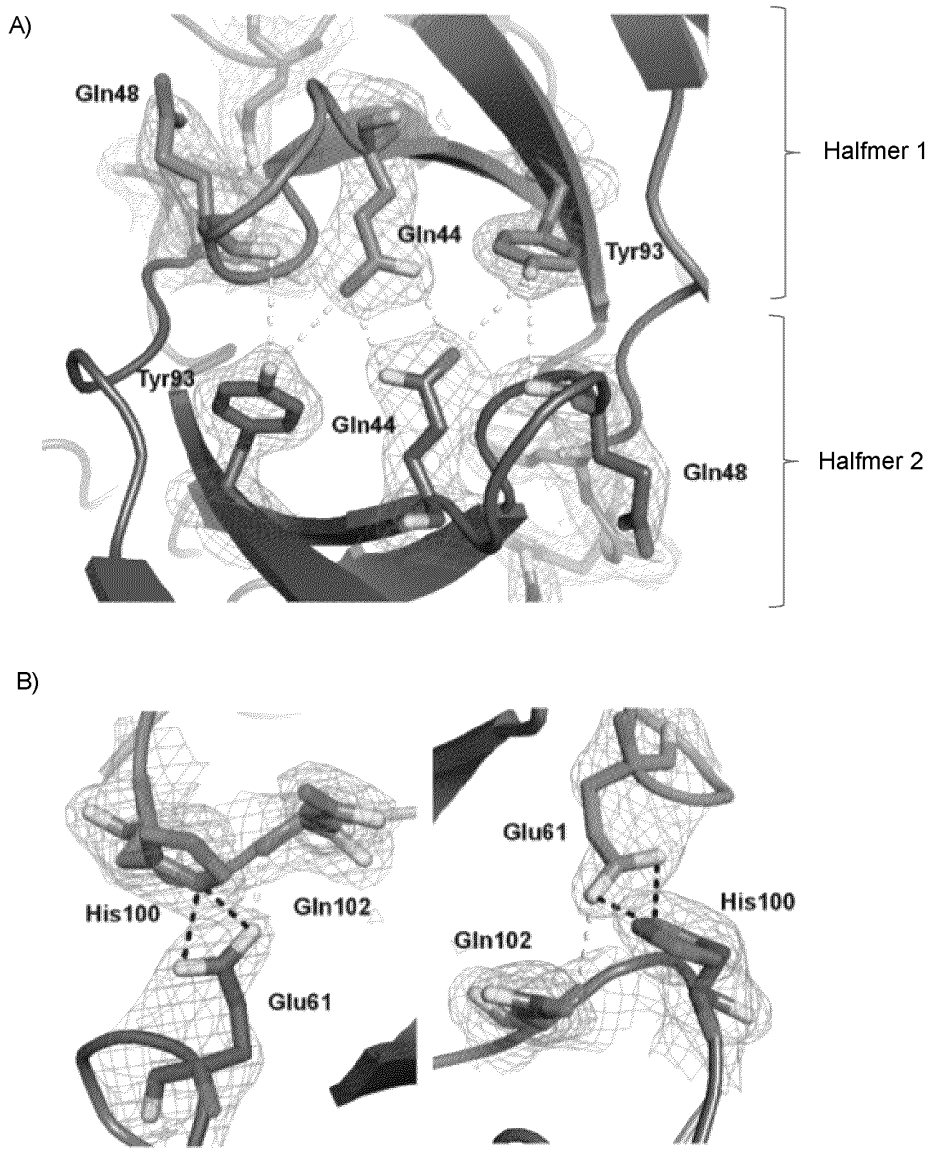

A)
Gln48
Gln44
Tyr93
Halfmer 1
Tyr93
Gln44
Gln48
Halfmer 2
B)
His100
Gln102
Glu61
Glu61
His100
Gln102

Figure 5

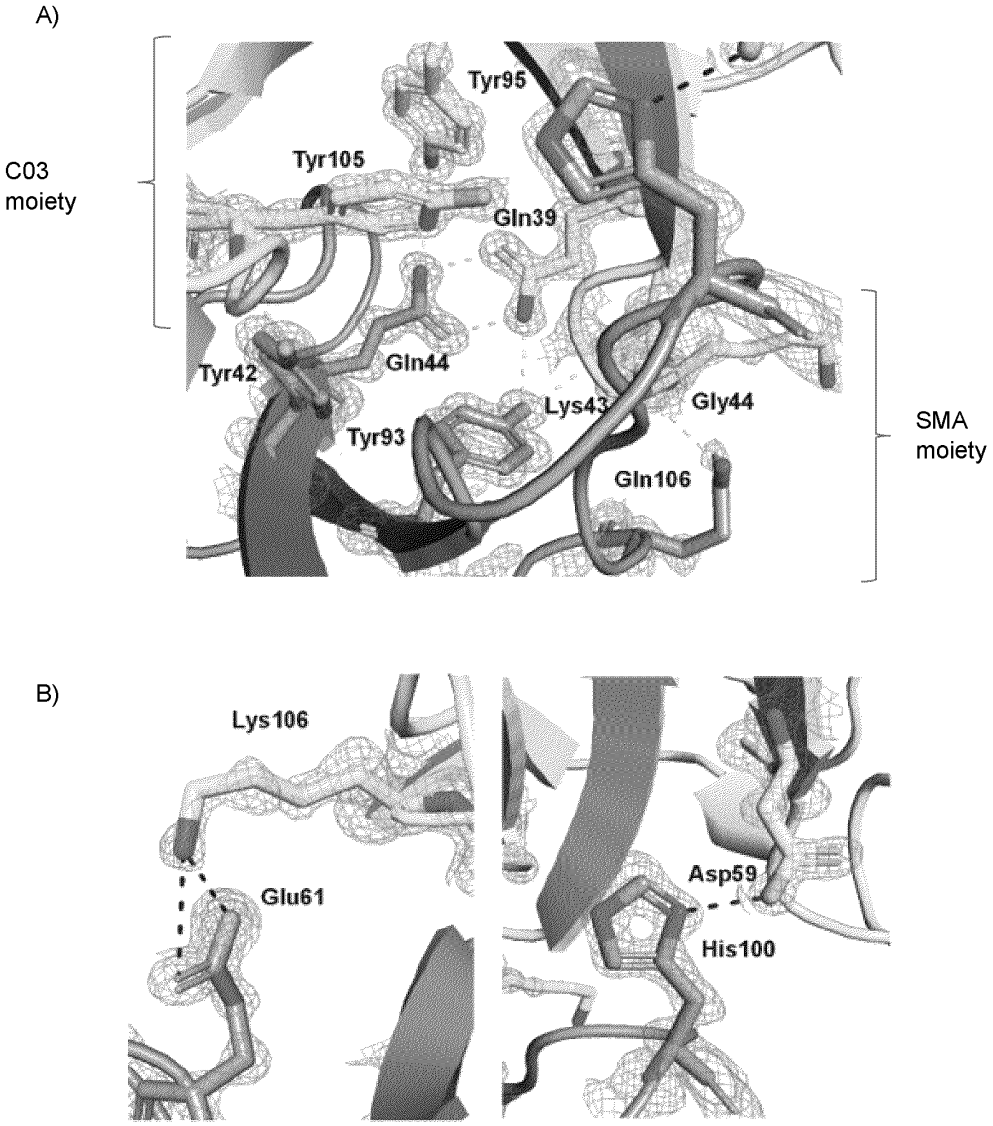

A)
C03
moiety
Tyr95
Tyr105
Gln39
Tyr42
Gln44
Lys43
Gly44
Tyr93
Gln106
SMA
moiety
B)
Lys106
Glu61
Asp59
His100

Figure 6

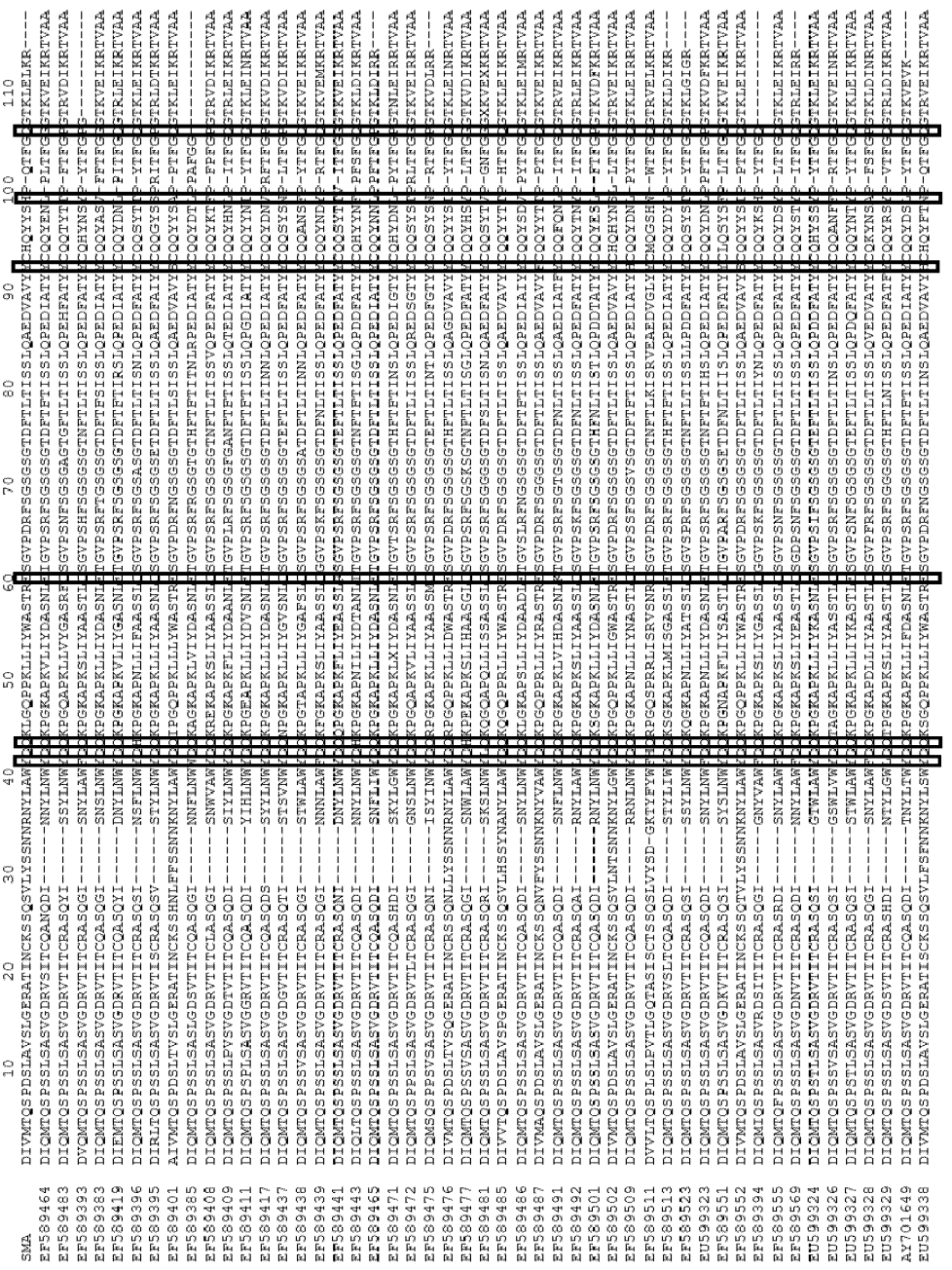


Figure 7

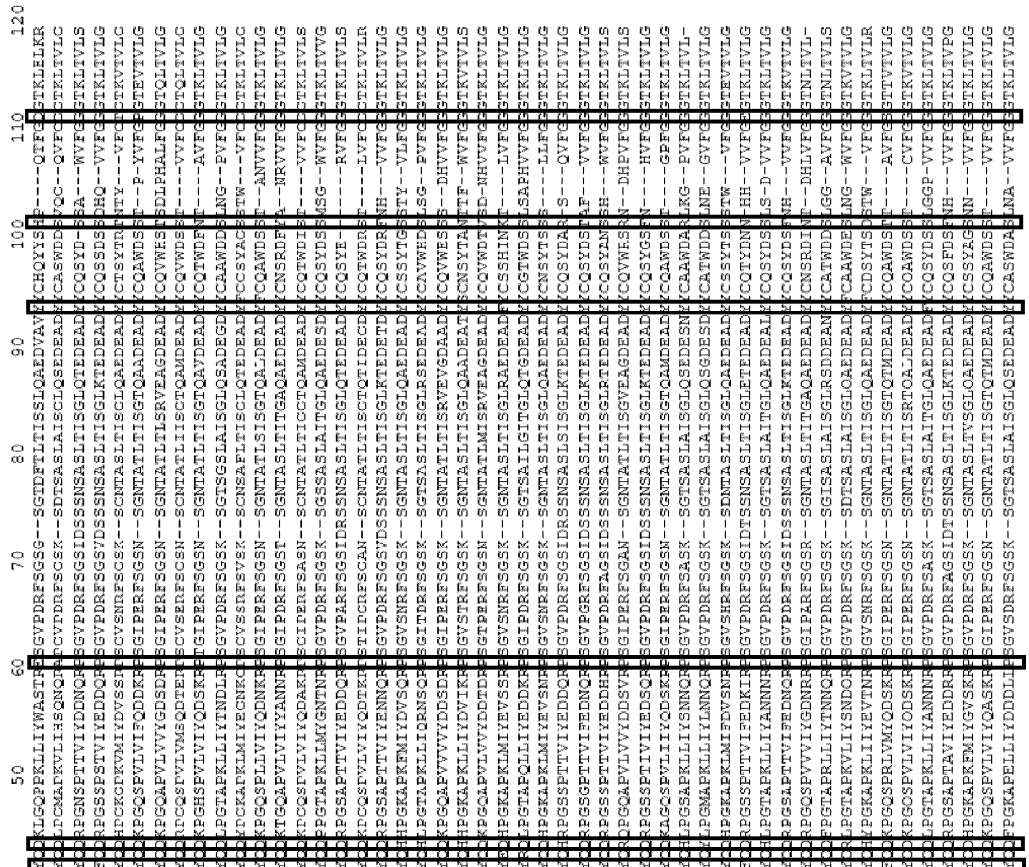
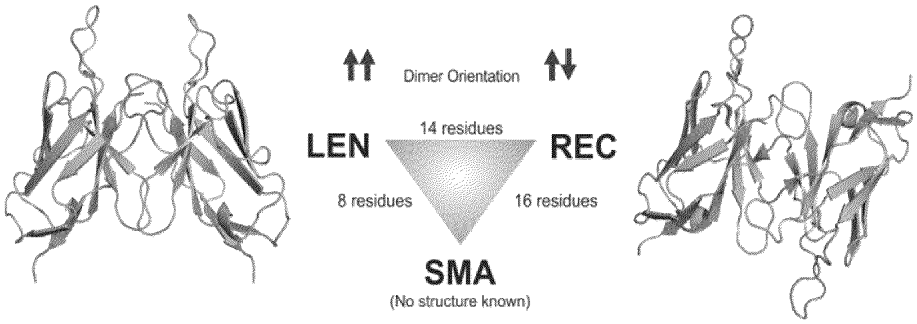


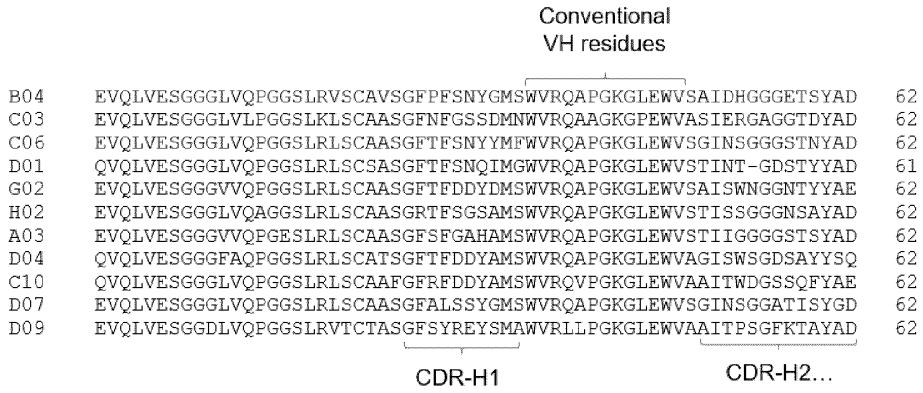
Figure 8




```
REC        DIVMTQSPDSLAVSPGERATINCKSSQNLLDASFDTNTLAWYQQKPGQPPKLLIYWASSR   60
SMA        DIVMTQSPDSLAVSLGERATINCKSSQSVLYSSNNRNYLAWYQQKLGQPPKLLIYWASTR   60
LEN        DIVMTQSPDSLAVSLGERATINCKSSQSVLYSSNSKNYLAWYQQKPGQPPKLLIYWASTR   60
Germline   DIVMTQSPDSLAVSLGERATINCKSSQSVLYSSNNKNYLAWYQQKPGQPPKLLIYWASTR   60

REC        ESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQQYYSTPPTFGGGTKVEIKR        114
SMA        ESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCHQYYSHPQTFGQGTKLELKR        114
LEN        ESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQQYYSTPYSFGQGTKLEIKR        114
Germline   ESGVPDRFSGSGSGTDFTLTISSLQAEDVAVYYCQQYYSTPYSFGQGTKLEIKR        114
```

Figure 9




```
B04    EVQLVESGGGLVQPGGSLRVSCAVSGFPFSNYGMSWVRQAPGKGLEWVSAIDHGGGETSYAD   62
C03    EVQLVESGGGLVLPGGSLKLSCAASGFNFGSSDMNWVRQAAGKGPEWVASIERGAGGTDYAD   62
C06    EVQLVESGGGLVQPGGSLRLSCAASGFTFSNYYMFWVRQAPGKGLEWVSGINSGGGSTNYAD   62
D01    QVQLVESGGGLVQPGGSLRLSCSASGFTFSNQIMGWVRQAPGKGLEWVSTINT-GDSTYYAD   61
G02    EVQLVESGGGVVQPGGSLRLSCAASGFTFDDYDMSWVRQAPGKGLEWVSAISWNGGNTYYAE   62
H02    EVQLVESGGGLVQAGGSLRLSCAASGRTFSGSAMSWVRQAPGKGLEWVSTISSGGGNSAYAD   62
A03    EVQLVESGGGVVQPGESLRLSCAASGFSFGAHAMSWVRQAPGKGLEWVSTIIGGGGSTSYAD   62
D04    QVQLVESGGGFAQPGGSLRLSCATSGFTFDDYAMSWVRQAPGKGLEWVAGISWSGDSAYYSQ   62
C10    QVQLVESGGGLVQPGGSLRLSCAAFGFRFDDYAMSWVRQVPGKGLEWVAAITWDGSSQFYAE   62
D07    EVQLVESGGGLVQPGGSLRLSCAASGFALSSYGMSWVRQAPGKGLEWVSGINSGGATISYGD   62
D09    EVQLVESGGDLVQPGGSLRVTCTASGFSYREYSMAWVRLLPGKGLEWVAAITPSGFKTAYAD   62

B04    SVKGRFTISRDNAKNTLYLQMNNLKPEDTAVYYCVNPRRGPW-----KYWGQGTQVTVSS    117
C03    SVQGRFTVSRDNAKSTLWLQMNSLKAEDTAVYYCVVSDNSGYY----KYWGQGTQVTVSS    118
C06    SVKGRFTISRDNAKNTLYLQMNNLKPEDTAVYYCVNPRRGPW-----KYWGQGTQVTVSS    117
D01    SVKGRFTISRDNAKNTLYLQMNSLKAEDTAVYYCAKDVGHGY-----DYWGQGTQVTVSS    116
G02    SLKGRFTISRDNAKNTVYLQMNSLKPEDTAVYYCARSLYTVERGGY-DYWGQGTQVTVSS    121
H02    SVKGRFTISRDSAKNTLYLQMNNLKPEDTAVYYCVNPRRGPW-----KYWGQGTQVTVSS    117
A03    SVKGRFTISKDNAKNTLYLQMDGLKPEDTAVYYCTKSQGNYWYVF--DYWGQGTQVTVSS    120
D04    TIKGRFTVSRDNAKNTMYLQMNNLKPEDSARYYCTKSQGNYWYVF--DYWGQGTQVTVSS    120
C10    SIKGRFSISRDNTNNTLSLQMNNLKPEDTAVYYCAKNLGDVITTAF-GSWGQGTLVTVSS    121
D07    SVKGRFTISRDNAKNTLFLQMNSLTPEDTAVYYCAKYVGSSWWRGYLEVWGRGTLVTVSS    122
D09    SVKGRFTISRDNPKNTLHLEMNNLKPEDTALYYCARHRRDAWFSEY-DVWGQGTQVTVSS    121
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Figure 10

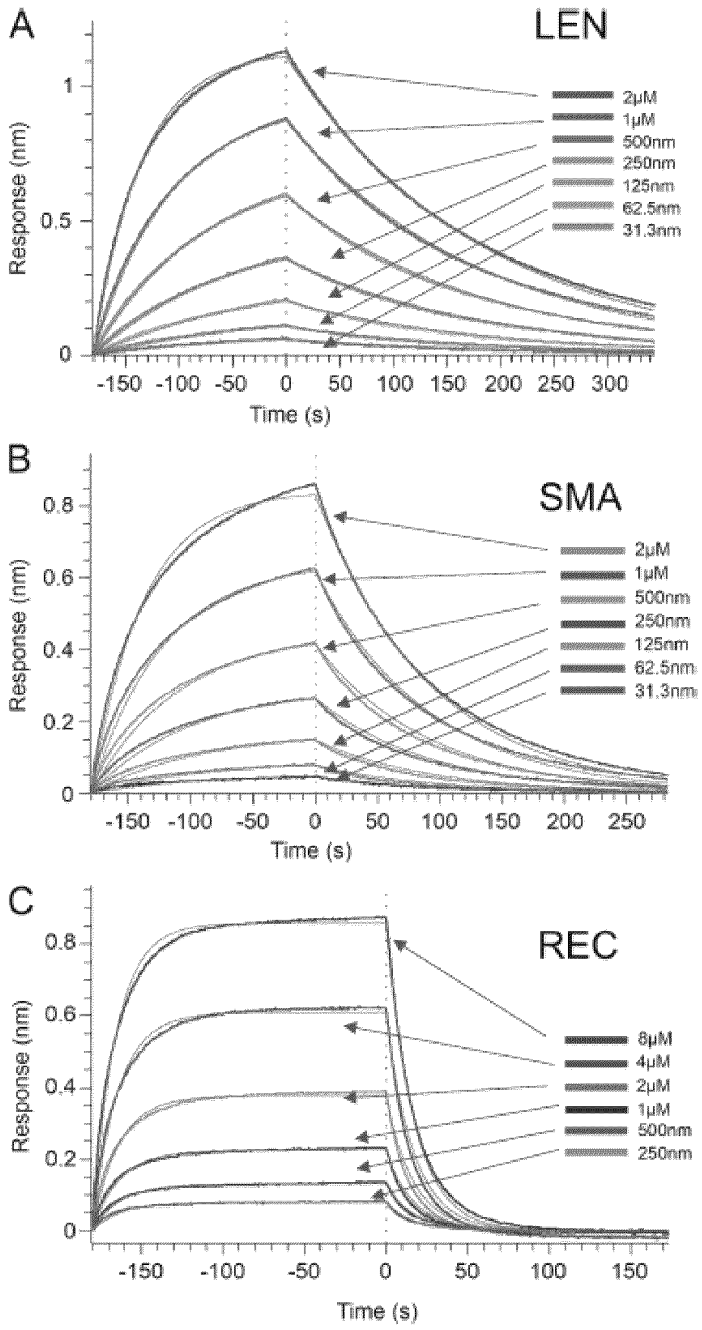

A
LEN
Response (nm)
Time (s)
2μM
1μM
500nm
250nm
125nm
62.5nm
31.3nm
B
SMA
Response (nm)
Time (s)
2μM
1μM
500nm
250nm
125nm
62.5nm
31.3nm
C
REC
Response (nm)
Time (s)
8μM
4μM
2μM
1μM
500nm
250nm

Figure 11