REPLACEMENT SHEET

Design of a soluble 7-helical bundle of mOR103-15

SEQ ID NO: 2

SEQ ID NO: 1

```
                              Q   Q   Q  Q   QT      QT (8)
MERRNHTGRV SEFVLLGFPA PAPLRALLFF LSLLAYVLVL TENILIITAI
                         abcdefga bcdefgabcd efgabcdefg

             Y      Y   T  T   T    Q  Y (7)
RNHPTLHKPM YFFLANMSFL EIWYVTVTIP KMLAGFIGSE ENHGQLISFE
a         a bcdefgabcd efgabcdefg abcdefg

          Q         T               T (3)          Q
ACMTQLYFFL GLGCTECVLL AVMAYDRYVA ICHPLHYPVI VSSRLCVQMA
 abcdefgab cdefgabcde fgabcdefga bc             abcdefg

          T   T  YQ (5)
AGSWAGGFGI SMVKVFLISR LSYCGPNTIN HFFCDVSPLL NLSCTDMSTA
abcdefgabc defgabcd
      Q  Y T      T (4)

ELTDFILAIF ILLGPLSVTG ASYMAITGAV MRIPSAAGRH KAFSTCASHL
 abcdefgab cdefgabcde fgabcdefga          a bcdefgabcd

 T  TY      YT (5)                    T  Q    T  Q (4)
TVVIIFYAAS IFIYARPKAL SAFDTNKLVS VLYAVIVPLL NPIIYCLRNQ
efgabcdefg abcd           abcdef gabcdefgab cdefgabc

EVKKALRRTL HLAQGQDANT KKSSRDGGSS GTETSQVAPA (36aa/340aa)
```

FIG. 1

REPLACEMENT SHEET

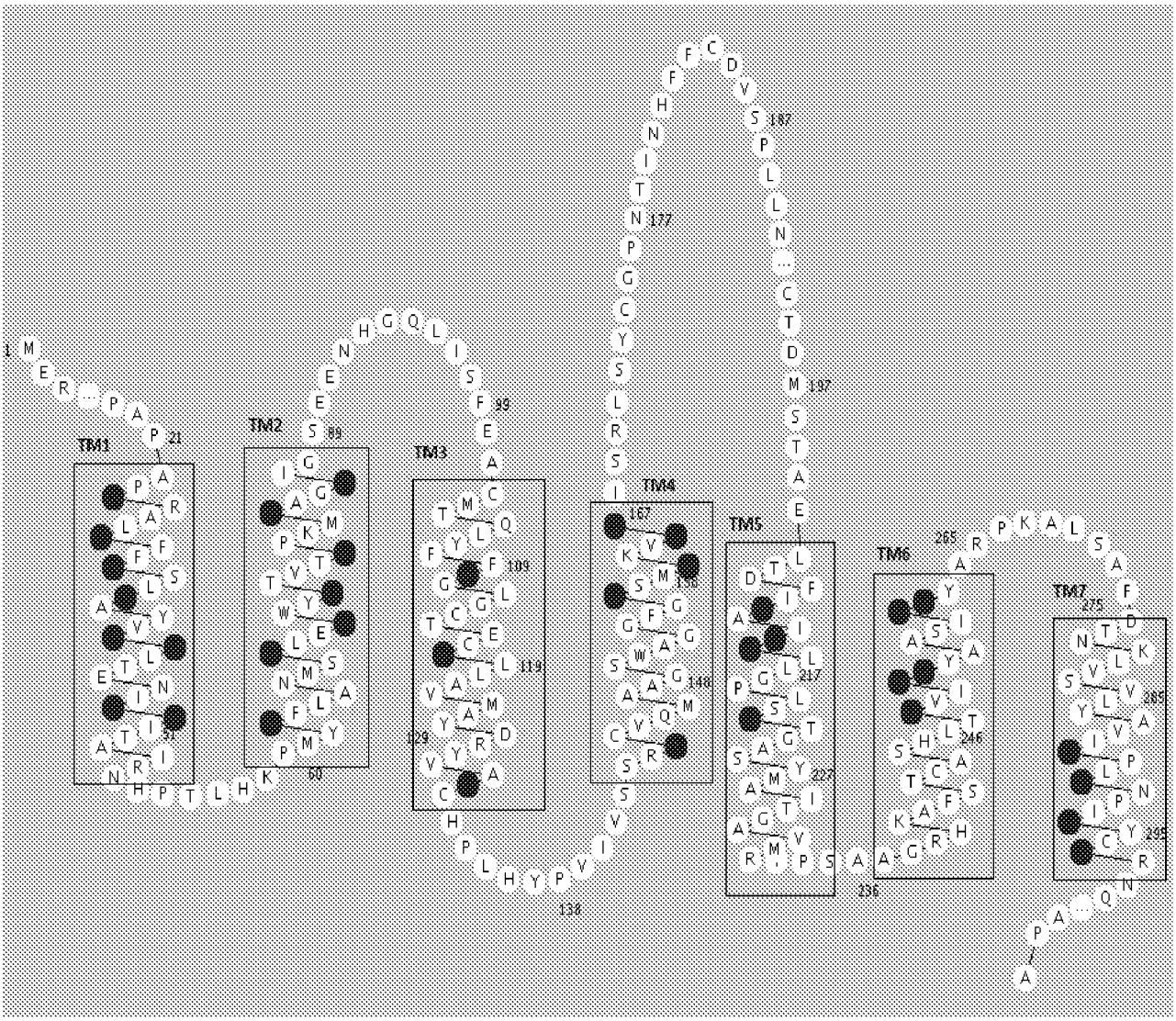
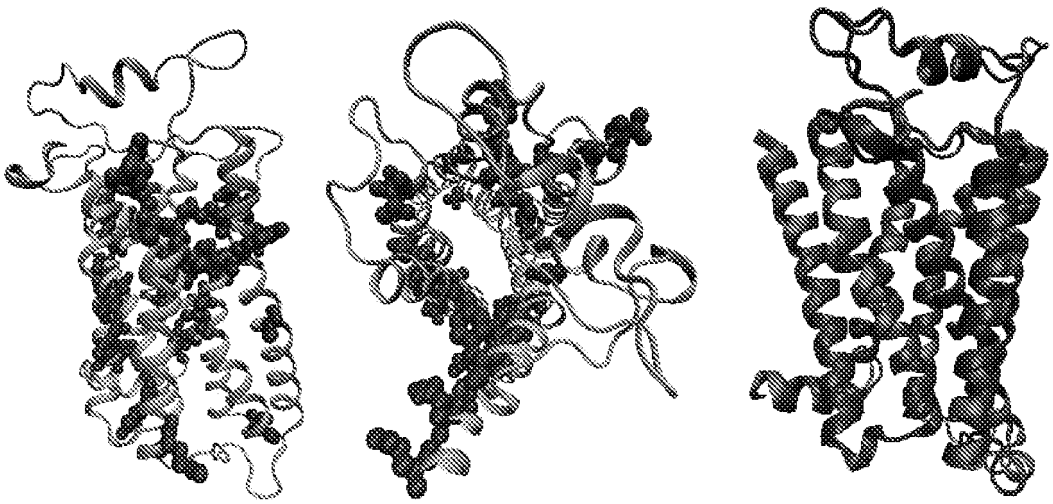


FIG. 2



FIGs. 3A-3C

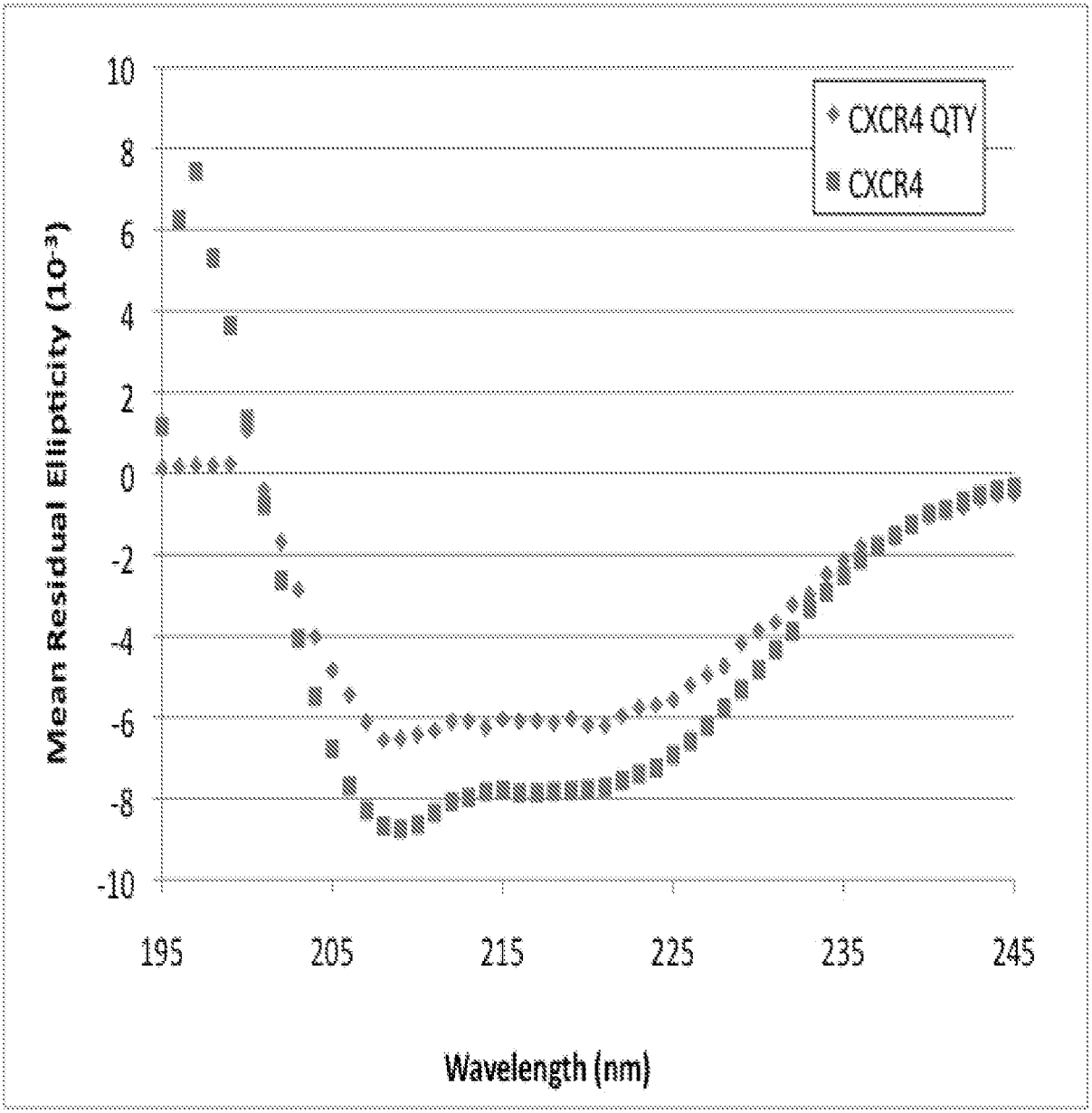

CXCR4 QTY
CXCR4
Mean Residual Ellipticity (10^{-3})
10
8
6
4
2
0
-2
-4
-6
-8
-10
195
205
215
225
235
245
Wavelength (nm)

FIG. 4

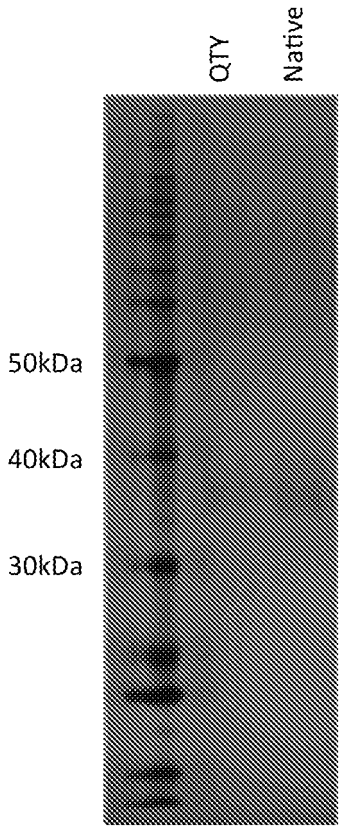


FIG. 5

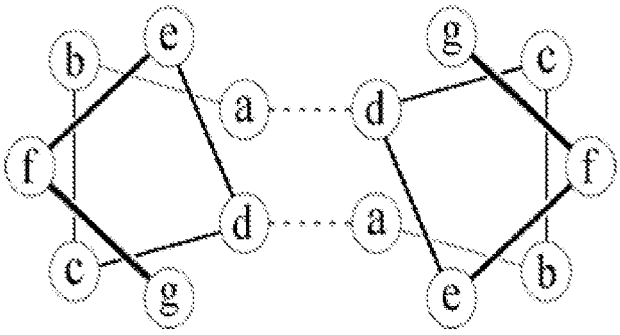


FIG. 6A

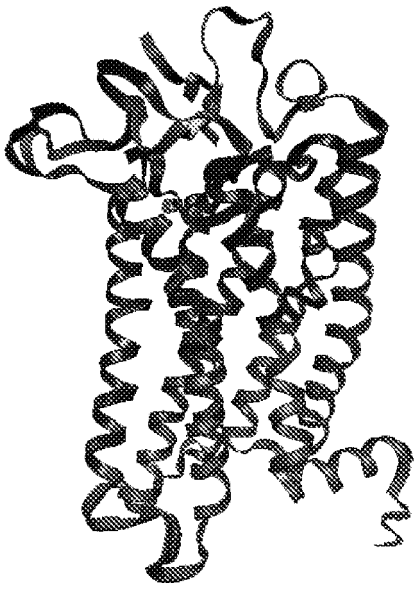


FIG. 6B

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REPLACEMENT SHEET

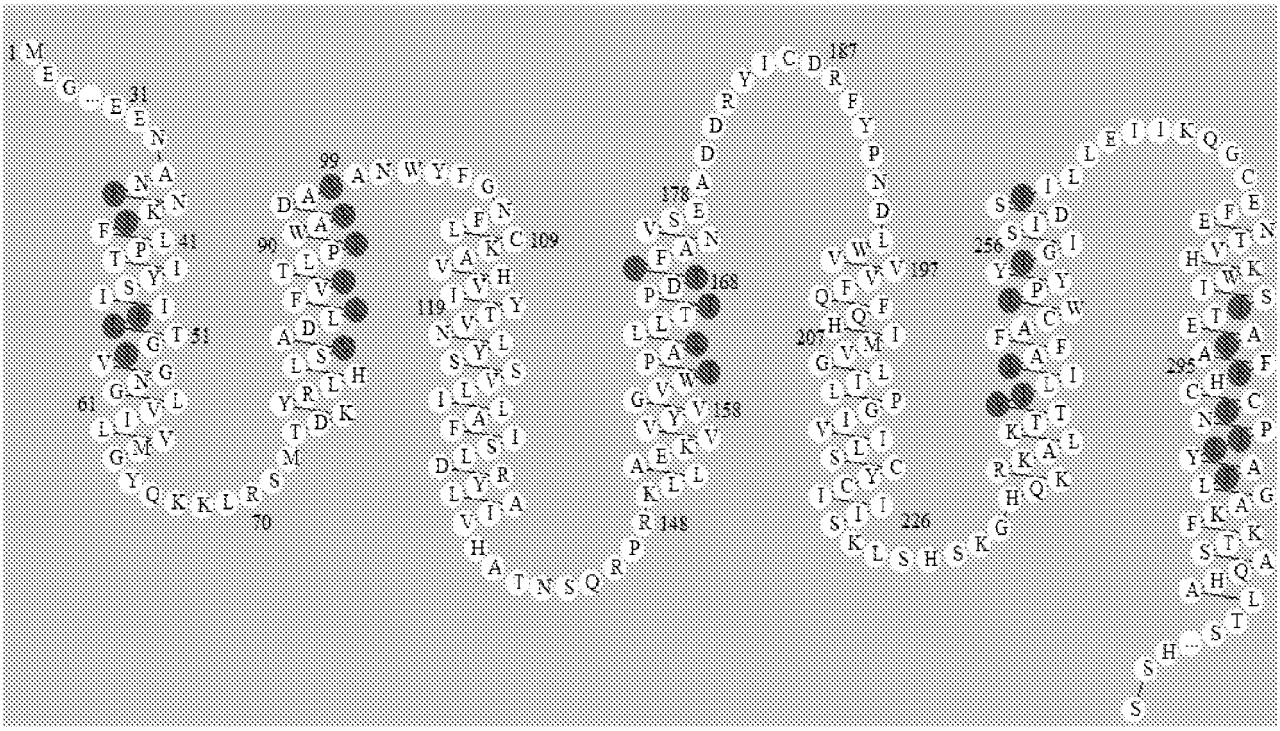


FIG. 6C

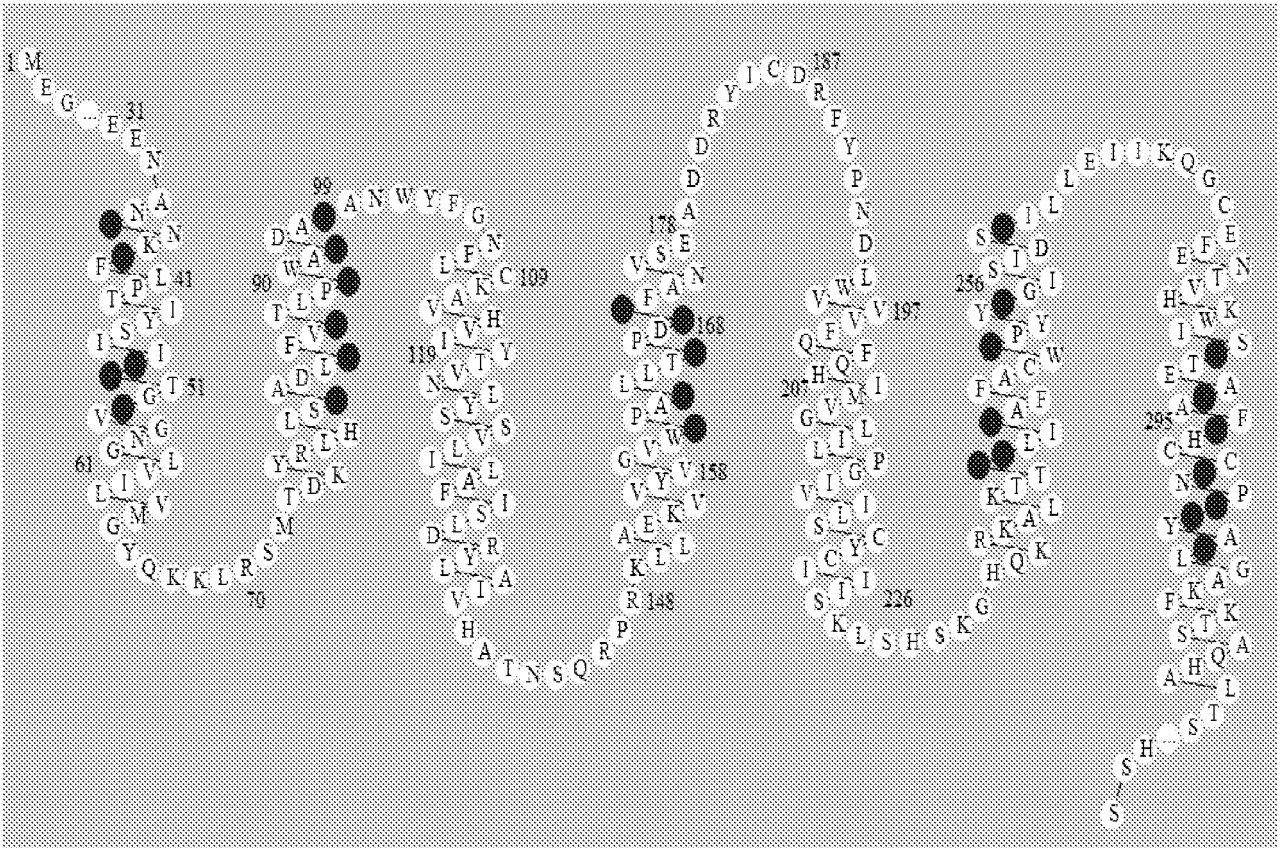


FIG. 6D