

Human kappa opioid receptor

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                                >KpnI
                                |
                    >AflIII    >Asp7181|
                    |           |       |
>NheI      >PmeI   |>HindIII|       |
|           |     |   |         |       |
|           |     |   |         |       |
          10   |   |   20   |       30        40            50
GCTAGCGTTTAAACTTAAGCTTGGTACCACC ATG GAA TCC CCG ATT CAG ATC
                               M E S P I Q I>
                               ____HUMAN KAPPA OPIOID R____>

                60              70              80              90
TTC CGC GGG GAG CCG GGC CCT ACC TGC GCC CCG AGC GCC TGC CTG
F R G E P G P T C A P S A C L>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

100              110              120              130              140
CCC CCC AAC AGC AGC GCC TGG TTT CCC GGC TGG GCC GAG CCC GAC
P P N S S A W F P G W A E P D>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

150              160              170              180
AGC AAC GGC AGC GCC GGC TCG GAG GAC GCG CAG CTG GAG CCC GCG
S N G S A G S E D A Q L E P A>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

190              200              210              220              230
CAC ATC TCC CCG GCC ATC CCG GTC ATC ATC ACG GCG GTC TAC TCC
H I S P A I P V I I T A V Y S>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

240              250              260              270
GTA GTG TTC GTC GTG GGC TTG GTG GGC AAC TCG CTG GTC ATG TTC
V V F V V G L V G N S L V M F>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

280              290              300              310              320
GTG ATC ATC CGA TAC ACA AAG ATG AAG ACA GCA ACC AAC ATT TAC
V I I R Y T K M K T A T N I Y>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

330              340              350              360
ATA TTT AAC CTG GCT TTG GCA GAT GCT TTA GTT ACT ACA ACC ATG
I F N L A L A D A L V T T T M>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

370              380              390              400              410
CCC TTT CAG AGT ACG GTC TAC TTG ATG AAT TCC TGG CCT TTT GGG
P F Q S T V Y L M N S W P F G>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

420              430              440              450
GAT GTG CTG TGC AAG ATA GTA ATT TCC ATT GAT TAC TAC AAC ATG
D V L C K I V I S I D Y Y N M>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

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460          470          480          490          500
TTC ACC AGC ATC TTC ACC TTG ACC ATG ATG AGC GTG GAC CGC TAC
F   T   S   I   F   T   L   T   M   M   S   V   D   R   Y>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

          510          520          530          540
ATT GCC GTG TGC CAC CCC GTG AAG GCT TTG GAC TTC CGC ACA CCC
I   A   V   C   H   P   V   K   A   L   D   F   R   T   P>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

550          560          570          580          590
TTG AAG GCA AAG ATC ATC AAT ATC TGC ATC TGG CTG CTG TCG TCA
L   K   A   K   I   I   N   I   C   I   W   L   L   S   S>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

          600          610          620          630
TCT GTT GGC ATC TCT GCA ATA GTC CTT GGA GGC ACC AAA GTC AGG
S   V   G   I   S   A   I   V   L   G   G   T   K   V   R>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

640          650          660          670          680
GAA GAC GTC GAT GTC ATT GAG TGC TCC TTG CAG TTC CCA GAT GAT
E   D   V   D   V   I   E   C   S   L   Q   F   P   D   D>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

          690          700          710          720
GAC TAC TCC TGG TGG GAC CTC TTC ATG AAG ATC TGC GTC TTC ATC
D   Y   S   W   W   D   L   F   M   K   I   C   V   F   I>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

730          740          750          760          770
TTT GCC TTC GTG ATC CCT GTC CTC ATC ATC ATC GTC TGC TAC ACC
F   A   F   V   I   P   V   L   I   I   I   V   C   Y   T>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

          780          790          800          810
CTG ATG ATC CTG CGT CTC AAG AGC GTC CGG CTC CTT TCT GGC TCC
L   M   I   L   R   L   K   S   V   R   L   L   S   G   S>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

820          830          840          850          860
CGA GAG AAA GAT CGC AAC CTG CGT AGG ATC ACC AGA CTG GTC CTG
R   E   K   D   R   N   L   R   R   I   T   R   L   V   L>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

          870          880          890          900
GTG GTG GTG GCA GTC TTC GTC GTC TGC TGG ACT CCC ATT CAC ATA
V   V   V   A   V   F   V   V   C   W   T   P   I   H   I>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

910          920          930          940          950
TTC ATC CTG GTG GAG GCT CTG GGG AGC ACC TCC CAC AGC ACA GCT
F   I   L   V   E   A   L   G   S   T   S   H   S   T   A>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

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          960          970          980          990
GCT CTC TCC AGC TAT TAC TTC TGC ATC GCC TTA GGC TAT ACC AAC
  A  L  S  S  Y  Y  F  C  I  A  L  G  Y  T  N>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

1000          1010          1020          1030          1040
AGT AGC CTG AAT CCC ATT CTC TAC GCC TTT CTT GAT GAA AAC TTC
  S  S  L  N  P  I  L  Y  A  F  L  D  E  N  F>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

          1050          1060          1070          1080
AAG CGG TGT TTC CGG GAC TTC TGC TTT CCA CTG AAG ATG AGG ATG
  K  R  C  F  R  D  F  C  F  P  L  K  M  R  M>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

1090          1100          1110          1120          1130
GAG CGG CAG AGC ACT AGC AGA GTC CGA AAT ACA GTT CAG GAT CCT
  E  R  Q  S  T  S  R  V  R  N  T  V  Q  D  P>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR_a__a__a__a__>

                                                    >XhoI
                                                    |
          1140          1150          1160          1170
GCT TAC CTG AGG GAC ATC GAT GGG ATG AAT AAA CCA GTA TGA CTCGA
  A  Y  L  R  D  I  D  G  M  N  K  P  V  *>
__a__a__a__HUMAN KAPPA OPIOID RECEPTOR__a__a__a__>

                                >PmeI
                                |
          >XbaI          >ApaI          |
          |          |          |
1180|          1190|          |1200
GTCTAGAGGGCCCGTTTAAAC

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