

Human mu opioid receptor 1 (OPRM1) in pcDNA 3.1

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                >AflIII      >Asp7181
                |           |
                |           |
>NheI          >PmeI      >HindIII      >KpnI
|             |           |           |
|             |           |           |
|             |           |           |
GCT AGC GTT TAA ACT TAA GCT TGG TAC CAC C ATG GAC AGC AGC GCT GCC
                M   D   S   S   A   A>
                _____HUMAN MU OPIOID _____>

50              60              70              80              90
CCC ACG AAC GCC AGC AAT TGC ACT GAT GCC TTG GCG TAC TCA AGT TGC
 P   T   N   A   S   N   C   T   D   A   L   A   Y   S   S   C>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

100             110             120             130             140
TCC CCA GCA CCC AGC CCC GGT TCC TGG GTC AAC TTG TCC CAC TTA GAT
 S   P   A   P   S   P   G   S   W   V   N   L   S   H   L   D>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

150             160             170             180             190
GGC AAC CTG TCC GAC CCA TGC GGT CCG AAC CGC ACC GAC CTG GGC GGC
 G   N   L   S   D   P   C   G   P   N   R   T   D   L   G   G>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

200             210             220             230             240
AGA GAC AGC CTG TGC CCT CCG ACC GGC AGT CCC TCC ATG ATC ACG GCC
 R   D   S   L   C   P   P   T   G   S   P   S   M   I   T   A>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

250             260             270             280
ATC ACG ATC ATG GCC CTC TAC TCC ATC GTG TGC GTG GTG GGG CTC TTC
 I   T   I   M   A   L   Y   S   I   V   C   V   V   G   L   F>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

290             300             310             320             330
GGA AAC TTC CTG GTC ATG TAT GTG ATT GTC AGA TAC ACC AAG ATG AAG
 G   N   F   L   V   M   Y   V   I   V   R   Y   T   K   M   K>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

340             350             360             370             380
ACT GCC ACC AAC ATC TAC ATT TTC AAC CTT GCT CTG GCA GAT GCC TTA
 T   A   T   N   I   Y   I   F   N   L   A   L   A   D   A   L>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

390             400             410             420             430
GCC ACC AGT ACC CTG CCC TTC CAG AGT GTG AAT TAC CTA ATG GGA ACA
 A   T   S   T   L   P   F   Q   S   V   N   Y   L   M   G   T>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

440             450             460             470             480
TGG CCA TTT GGA ACC ATC CTT TGC AAG ATA GTG ATC TCC ATA GAT TAC
 W   P   F   G   T   I   L   C   K   I   V   I   S   I   D   Y>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

490             500             510             520

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TAT AAC ATG TTC ACC AGC ATA TTC ACC CTC TGC ACC ATG AGT GTT GAT
Y   N   M   F   T   S   I   F   T   L   C   T   M   S   V   D>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

530          540          550          560          570
CGA TAC ATT GCA GTC TGC CAC CCT GTC AAG GCC TTA GAT TTC CGT ACT
R   Y   I   A   V   C   H   P   V   K   A   L   D   F   R   T>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

580          590          600          610          620
CCC CGA AAT GCC AAA ATT ATC AAT GTC TGC AAC TGG ATC CTC TCT TCA
P   R   N   A   K   I   I   N   V   C   N   W   I   L   S   S>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

630          640          650          660          670
GCC ATT GGT CTT CCT GTA ATG TTC ATG GCT ACA ACA AAA TAC AGG CAA
A   I   G   L   P   V   M   F   M   A   T   T   K   Y   R   Q>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

680          690          700          710          720
GGT TCC ATA GAT TGT ACA CTA ACA TTC TCT CAT CCA ACC TGG TAC TGG
G   S   I   D   C   T   L   T   F   S   H   P   T   W   Y   W>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

730          740          750          760
GAA AAC CTG CTG AAG ATC TGT GTT TTC ATC TTC GCC TTC ATT ATG CCA
E   N   L   L   K   I   C   V   F   I   F   A   F   I   M   P>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

770          780          790          800          810
GTG CTC ATC ATT ACC GTG TGC TAT GGA CTG ATG ATC TTG CGC CTC AAG
V   L   I   I   T   V   C   Y   G   L   M   I   L   R   L   K>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

820          830          840          850          860
AGT GTC CGC ATG CTC TCT GGC TCC AAA GAA AAG GAC AGG AAT CTT CGA
S   V   R   M   L   S   G   S   K   E   K   D   R   N   L   R>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

870          880          890          900          910
AGG ATC ACC AGG ATG GTG CTG GTG GTG GTG GCT GTG TTC ATC GTC TGC
R   I   T   R   M   V   L   V   V   V   A   V   F   I   V   C>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

920          930          940          950          960
TGG ACT CCC ATT CAC ATT TAC GTC ATC ATT AAA GCC TTG GTT ACA ATC
W   T   P   I   H   I   Y   V   I   I   K   A   L   V   T   I>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

970          980          990          1000
CCA GAA ACT ACG TTC CAG ACT GTT TCT TGG CAC TTC TGC ATT GCT CTA
P   E   T   T   F   Q   T   V   S   W   H   F   C   I   A   L>
__a__a__a__HUMAN MU OPIOID RECEPTOR 1 (OPRM1)__a__a__a__>

1010          1020          1030          1040          1050
GGT TAC ACA AAC AGC TGC CTC AAC CCA GTC CTT TAT GCA TTT CTG GAT
G   Y   T   N   S   C   L   N   P   V   L   Y   A   F   L   D>

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____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

1060          1070          1080          1090          1100
GAA AAC TTC AAA CGA TGC TTC AGA GAG TTC TGT ATC CCA ACC TCT TCC
E  N  F  K  R  C  F  R  E  F  C  I  P  T  S  S>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

      1110          1120          1130          1140          1150
AAC ATT GAG CAA CAA AAC TCC ACT CGA ATT CGT CAG AAC ACT AGA GAC
N  I  E  Q  Q  N  S  T  R  I  R  Q  N  T  R  D>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

      1160          1170          1180          1190          1200
CAC CCC TCC ACG GCC AAT ACA GTG GAT AGA ACT AAT CAT CAG CTA GAA
H  P  S  T  A  N  T  V  D  R  T  N  H  Q  L  E>
____a____a____a____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)____a____a____a____>

                                     >XhoI   >XbaI           >ApaI
                                     |       |               |
      1210          1220          1230          |       1240|           1250|
AAT CTG GAA GCA GAA ACT GCT CCG TTG CCC TAA CT CGA GTC TAG AGG GCC
N  L  E  A  E  T  A  P  L  P  *>
____HUMAN MU OPIOID RECEPTOR 1 (OPRM1)_a____>

      >PmeI
      |
      | 1260
CGT TTA AAC

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