

Human prostaglandin E receptor 4 subtype EP4 (PTGER4) in pcDNA 3.1

```

                >AflIII      >Asp7181
                |           |
                |           |
>NheI          >PmeI      >HindIII      >KpnI          >BamHI
|             |           |           |           |
|             |           |           |           |
|             |           |           |           |
GCT AGC GTT TAA ACT TAA GCT TGG TAC CGA GCT CGG ATC CAC TAG TCC

                >BstXI      >EcoRI
                |           |
                |           |
50          60          70          80          90
AGT GTG GTG GAA TTC ACC ATG TCC ACT CCC GGG GTC AAT TCG TCC GCC
    M   S   T   P   G   V   N   S   S   A>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4_____>

100          110          120          130          140
TCC TTG AGC CCC GAC CGG CTG AAC AGC CCA GTG ACC ATC CCG GCG GTG
    S   L   S   P   D   R   L   N   S   P   V   T   I   P   A   V>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

150          160          170          180          190
ATG TTC ATC TTC GGG GTG GTG GGC AAC CTG GTG GCC ATC GTG GTG CTG
    M   F   I   F   G   V   V   G   N   L   V   A   I   V   V   L>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

200          210          220          230          240
TGC AAG TCG CGC AAG GAG CAG AAG GAG ACG ACC TTC TAC ACG CTG GTA
    C   K   S   R   K   E   Q   K   E   T   T   F   Y   T   L   V>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

250          260          270          280
TGT GGG CTG GCT GTC ACC GAC CTG TTG GGC ACT TTG TTG GTG AGC CCG
    C   G   L   A   V   T   D   L   L   G   T   L   L   V   S   P>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

290          300          310          320          330
GTG ACC ATC GCC ACG TAC ATG AAG GGC CAA TGG CCC GGG GGC CAG CCG
    V   T   I   A   T   Y   M   K   G   Q   W   P   G   G   Q   P>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

340          350          360          370          380
CTG TGC GAG TAC AGC ACC TTC ATT CTG CTC TTC TTC AGC CTG TCC GGC
    L   C   E   Y   S   T   F   I   L   L   F   F   S   L   S   G>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

390          400          410          420          430
CTC AGC ATC ATC TGC GCC ATG AGT GTC GAG CGC TAC CTG GCC ATC AAC
    L   S   I   I   C   A   M   S   V   E   R   Y   L   A   I   N>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

440          450          460          470          480
CAT GCC TAT TTC TAC AGC CAC TAC GTG GAC AAG CGA TTG GCG GGC CTC
    H   A   Y   F   Y   S   H   Y   V   D   K   R   L   A   G   L>
      _____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

490          500          510          520

```

```

ACG CTC TTT GCA GTC TAT GCG TCC AAC GTG CTC TTT TGC GCG CTG CCC
  T  L  F  A  V  Y  A  S  N  V  L  F  C  A  L  P>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

530          540          550          560          570
AAC ATG GGT CTC GGT AGC TCG CGG CTG CAG TAC CCA GAC ACC TGG TGC
  N  M  G  L  G  S  S  R  L  Q  Y  P  D  T  W  C>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          580          590          600          610          620
TTC ATC GAC TGG ACC ACC AAC GTG ACG GCG CAC GCC GCC TAC TCC TAC
  F  I  D  W  T  T  N  V  T  A  H  A  A  Y  S  Y>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          630          640          650          660          670
ATG TAC GCG GGC TTC AGC TCC TTC CTC ATT CTC GCC ACC GTC CTC TGC
  M  Y  A  G  F  S  S  F  L  I  L  A  T  V  L  C>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          680          690          700          710          720
AAC GTG CTT GTG TGC GGC GCG CTG CTC CGC ATG CAC CGC CAG TTC ATG
  N  V  L  V  C  G  A  L  L  R  M  H  R  Q  F  M>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          730          740          750          760
CGC CGC ACC TCG CTG GGC ACC GAG CAG CAC CAC GCG GCC GCG GCC GCC
  R  R  T  S  L  G  T  E  Q  H  H  A  A  A  A  A>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

770          780          790          800          810
TCG GTT GCC TCC CGG GGC CAC CCC GCT GCC TCC CCA GCC TTG CCG CGC
  S  V  A  S  R  G  H  P  A  A  S  P  A  L  P  R>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          820          830          840          850          860
CTC AGC GAC TTT CGG CGC CGC CGG AGC TTC CGC CGC ATC GCG GGC GCC
  L  S  D  F  R  R  R  R  S  F  R  R  I  A  G  A>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          870          880          890          900          910
GAG ATC CAG ATG GTC ATC TTA CTC ATT GCC ACC TCC CTG GTG GTG CTC
  E  I  Q  M  V  I  L  L  I  A  T  S  L  V  V  L>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          920          930          940          950          960
ATC TGC TCC ATC CCG CTC GTG GTG CGA GTA TTC GTC AAC CAG TTA TAT
  I  C  S  I  P  L  V  V  R  V  F  V  N  Q  L  Y>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

          970          980          990          1000
CAG CCA AGT TTG GAG CGA GAA GTC AGT AAA AAT CCA GAT TTG CAG GCC
  Q  P  S  L  E  R  E  V  S  K  N  P  D  L  Q  A>
___HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a___>

1010          1020          1030          1040          1050
ATC CGA ATT GCT TCT GTG AAC CCC ATC CTA GAC CCC TGG ATA TAT ATC
  I  R  I  A  S  V  N  P  I  L  D  P  W  I  Y  I>

```

```

____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1060      1070      1080      1090      1100
CTC CTG AGA AAG ACA GTG CTC AGT AAA GCA ATA GAG AAG ATC AAA TGC
L  L  R  K  T  V  L  S  K  A  I  E  K  I  K  C>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1110      1120      1130      1140      1150
CTC TTC TGC CGC ATT GGC GGG TCC CGC AGG GAG CGC TCC GGA CAG CAC
L  F  C  R  I  G  G  S  R  R  E  R  S  G  Q  H>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1160      1170      1180      1190      1200
TGC TCA GAC AGT CAA AGG ACA TCT TCT GCC ATG TCA GGC CAC TCT CGC
C  S  D  S  Q  R  T  S  S  A  M  S  G  H  S  R>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1210      1220      1230      1240
TCC TTC ATC TCC CGG GAG CTG AAG GAG ATC AGC AGT ACA TCT CAG ACC
S  F  I  S  R  E  L  K  E  I  S  S  T  S  Q  T>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1250      1260      1270      1280      1290
CTC CTG CCA GAC CTC TCA CTG CCA GAC CTC AGT GAA AAT GGC CTT GGA
L  L  P  D  L  S  L  P  D  L  S  E  N  G  L  G>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1300      1310      1320      1330      1340
GGC AGG AAT TTG CTT CCA GGT GTG CCT GGC ATG GGC CTG GCC CAG GAA
G  R  N  L  L  P  G  V  P  G  M  G  L  A  Q  E>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1350      1360      1370      1380      1390
GAC ACC ACC TCA CTG AGG ACT TTG CGA ATA TCA GAG ACC TCA GAC TCT
D  T  T  S  L  R  T  L  R  I  S  E  T  S  D  S>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1400      1410      1420      1430      1440
TCA CAG GGT CAG GAC TCA GAG AGT GTC TTA CTG GTG GAT GAG GCT GGT
S  Q  G  Q  D  S  E  S  V  L  L  V  D  E  A  G>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

1450      1460      1470      1480
GGG AGC GGC AGG GCT GGG CCT GCC CCT AAG GGG AGC TCC CTG CAA GTC
G  S  G  R  A  G  P  A  P  K  G  S  S  L  Q  V>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER4) _a____>

                                                    >XhoI
                                                    |
1490      1500      1510      1520      1530      |
ACA TTT CCC AGT GAA ACA CTG AAC TTA TCA GAA AAA TGT ATA TAA CTC
T  F  P  S  E  T  L  N  L  S  E  K  C  I  *>
____HUMAN PROSTAGLANDIN E RECEPTOR 4 SUBTYPE EP4 (PTGER____>

>XbaI      >ApaI      >PmeI
|           |           |
1540      1550      |

```

GAG TCT AGA GGG CCC GTT TAA AC