

## Product datasheet for **RG210932**

### EP4 (PTGER4) (NM\_000958) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EP4 (PTGER4) (NM_000958) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EP4
Synonyms:	EP4; EP4R
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG210932 representing NM\_000958  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCACTCCCAGGGTCAATTCGTCGCCCTCCTTGAGCCCCGACCGGCTGAACAGCCCAGTGACCATCC  
 CGGCGGTGATGTTTCATCTTCGGGGTGGTGGCAACCTGGTGGCCATCGTGGTGTGTGCAAGTCGCGCAA  
 GGAGCAGAAGGAGACGACCTTCTACACGCTGGTATGTGGGCTGGCTGTCACCGACCTGTTGGCACTTTG  
 TTGGTGAAGCCGGTGACCATCGCCACGTACATGAAGGGCCAATGGCCCGGGGGCCAGCCGCTGTGCGAGT  
 ACAGCACCTTCATTCTGCTCTTCTCAGCCTGTCCGGCTCAGCATCATCTGCGCCATGAGTGTGAGCG  
 CTACCTGGCCATCAACCATGCCTATTTCTACAGCCACTACGTGGACAAGCGATTGGCGGGCTCACGCTC  
 TTTGCAGTCTATCGTCCAACGTGCTCTTTGCGCGCTGCCAACATGGGTCTCGGTAGCTCGGGCTGC  
 AGTACCCAGACACCTGGTCTTCATCGACTGGACCACCAACGTGACGGCGCACGCCGCTACTCCTACAT  
 GTACGCGGGCTTACGCTCCTTCTCATTCTCGCCACCGTCTCTGCAACGTGCTTGTGTGGCGCGCGCTG  
 CTCGCGATGCACCGCCAGTTCATGCGCCGACCTCGCTGGGACCGAGCAGCACCACGCGGCCGCGGCCG  
 CCTCGGTTGCCTCCCAGGGCCACCCCGTGCCTCCCCAGCCTTGGCGCGCTCAGCGACTTTCGGCGCCG  
 CCGGAGCTTCGCGCCATCGCGGGCGCCGAGATCCAGATGGTCACTTACTCATTGCCACCTCCCTGGTG  
 GTGCTCATCTGCTCCATCCCCTCGTGGTGGGAGTATTCGTCGAACCAAGTTATATCAGCCAAGTTGGAGC  
 GAGAAGTCAGTAAAAATCCAGATTTGCAGGCCATCCGAATTGCTTCTGTGAACCCCATCTAGACCCCTG  
 GATATATATCCTCCTGAGAAAGACAGTGCTCAGTAAAGCAATAGAGAAGTCAAATGCCTCTTCTGCCG  
 ATTGGCGGGTCCCGCAGGGAGCGCTCCGGACAGCACTGCTCAGACAGTCAAAGGACATCTTCTGCCATGT  
 CAGGCCACTCTCGCTCCTCATCTCCCAGGAGCTGAAGGAGATCAGCAGTACATCTCAGACCCCTCCTGCC  
 AGACCTCACTGCCAGACCTCAGTAAAAATGGCCTTGGAGGCAGGAATTTGCTTCCAGGTGTGCCTGGC  
 ATGGGCTGAGCCAGGAAGACACCACTCACTGAGGACTTTGCGAATATCAGAGACCTCAGACTCTTAC  
 AGGGTCAGGACTCAGAGAGTGTCTTACTGGTGGATGAGGCTGGTGGGAGCGGCAGGGCTGGGCTGCCCC  
 TAAGGGGAGCTCCCTGCAAGTCACATTTCCAGTGAACACTGAACTTATCAGAAAAATGTATA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG210932 representing NM\_000958  
 Red=Cloning site Green=Tags(s)

MSTPGVNSSASLSPDRLNSPVTIPAVMFIQVVGNLVAIVVLCKSRKEQKETTFFYTLVCLAVTDLLGTL  
 LVSPVTIATYMKQWPGGQPLCEYSTFILLFFSLSGLSIICAMSVERYLAINHAYFYSHYVDKRLAGLTL  
 FAVYASNVLFCALPNMGLGSSRLQYPDTWCFIDWTTNVTAAHAASYMYAGFSSFLILATVLCNVLVCAL  
 LRMHRQFMRRRTSLGTEQHHAASASVASRGHPAASPALPRLSDFRRRRSFRRIAGAEIQMVILLIATSLV  
 VLICSIPLVVRVFNQLYQPSLEREVSKNPDQAIRIASVNPILDPWIYILLRKTVLSKAIEKIKLFCR  
 IGGSRRERSGQHCSDSQRTSSAMSGHSRSFISRELKEISSTSQTLLPDLPLSENGLGGRNLLPGVPG  
 MGLAQEDTTSLRLRISETSDSSQGQDSESVLLVDEAGGSGRAGPAPKGSLSLQVTFPSETLNLSEKCI

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000958

**ORF Size:** 1464 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_000958.3](#)

**RefSeq Size:** 3432 bp

**RefSeq ORF:** 1467 bp

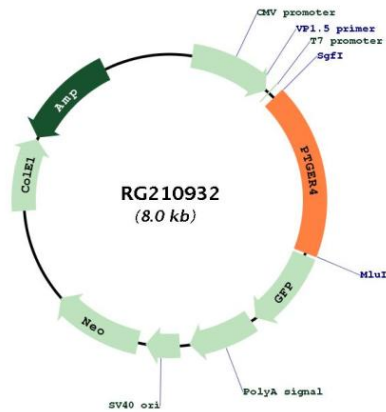
**Locus ID:** 5734

**UniProt ID:** [P35408](#)

**Cytogenetics:** 5p13.1  
**Domains:** 7tm\_1  
**Protein Families:** Druggable Genome, GPCR, Transmembrane  
**Protein Pathways:** Neuroactive ligand-receptor interaction  
**Gene Summary:**

The protein encoded by this gene is a member of the G-protein coupled receptor family. This protein is one of four receptors identified for prostaglandin E2 (PGE2). This receptor can activate T-cell factor signaling. It has been shown to mediate PGE2 induced expression of early growth response 1 (EGR1), regulate the level and stability of cyclooxygenase-2 mRNA, and lead to the phosphorylation of glycogen synthase kinase-3. Knockout studies in mice suggest that this receptor may be involved in the neonatal adaptation of circulatory system, osteoporosis, as well as initiation of skin immune responses. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG210932