

Product datasheet for **MC211783**

Gper1 (NM_029771) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gper1 (NM_029771) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gper1
Synonyms:	6330420K13Rik; Cepri; CMKRL2; FEG-1; GPCR-Br; Gper; Gpr30
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_029771, the custom clone sequence may differ by one or more nucleotides

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ATGGATGCGACTACTCCAGCCCAAACCTGTTGGGGTGGAGATCTACCTAGGTCCCCTGTGGCCAGCCCTT
CCAACAGCACCCCTCTGGCCCTCAACTTGTCCCTGGCACTGCGGGGAAGATGCCCGGGGAACCTCACTGG
GGACCTCTCTGAGCATCAGCAGTACGTGATTGCCCTCTCCTCTCCTGCCTACACCATCTTCCTCTTT
CCTATTGGCTTTGTGGGCAACATCCTCATCCTGGTGGTGAACATCAGCTTCCGGGAGAAGATGACCATCC
CAGACCTGTACTCATCAACCTGGCGGGCGCCGACCTCATCCTGGTGGCTGACTCCCTGATTGAGGTGTT
CAACCTGGACGAGCAGTACTACGACATCGCAGTGTCTGCACCTTCATGTCCCTCTCCTGCAGATCAAC
ATGTACAGCAGCGTCTTCTTCTCACCTGGATGAGCTTCGACAGGTACCTAGCGCTGGCCAAGGCCATGC
GCTGTGGCCTCTCCGCACCAAGCACCACGCACGGCTCAGCTGTGGCCTCATCTGGATGGCCTCAGTGTC
CGCCACGCTGGTGCCTTTCACAGCGGTGCACCTGCGGCACACGGAGGAGGCTGCTTCTGCTTTGCTGAT
GTCAGGGAGGTGCAGTGGCTGGAGGTACACTGGGCTTCATATGCCCTTCGCCATCATTGGCCTCTGCT
ACTCCCTCATCGTGCGAGCCCTCATCCGGGCCACAGGCACCGCGCCTGCGCCACGCAGGCAGAAAGC
CCTGAGGATGATCTTCGAGTGGTCTTGTCTTCTCATCTGCTGGTGGCGGAGAAGCTTTCATCAGT
GTCCACCTACTGCAGTGGACGCAGCCAGGGGACACTCCCTGCAAGCAGTCTTCCGTACGCCTACCCCT
TGACAGGCCACATAGTCAACCTTGACGCTTCTCCAACAGCTGCCTGAATCCCTCATCTACAGCTTCT
GGGAGAGACCTTCAGGGACAAGCTCAGGCTCTATGTGGAGCAGAAGACGAGCCTGCCGGCTCTGAACCGC
TTCTGCCATGCCACGCTCAAGGCCGTATTCCAGACAGCACAGAGCAGTCAGAGGTACAGGTTACAGCAGTG
CTGTGTGA

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Restriction Sites:	Sgfl-MluI
ACCN:	NM_029771
Insert Size:	1128 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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:	BC138598 , AAI38599
RefSeq Size:	1924 bp
RefSeq ORF:	1128 bp
Locus ID:	76854
UniProt ID:	Q8BMP4
Cytogenetics:	5 G2

Gene Summary:

G-protein coupled estrogen receptor that binds to 17-beta-estradiol (E2) with high affinity, leading to rapid and transient activation of numerous intracellular signaling pathways. Stimulates cAMP production, calcium mobilization and tyrosine kinase Src inducing the release of heparin-bound epidermal growth factor (HB-EGF) and subsequent transactivation of the epidermal growth factor receptor (EGFR), activating downstream signaling pathways such as PI3K/Akt and ERK/MAPK. Mediates pleiotropic functions among others in the cardiovascular, endocrine, reproductive, immune and central nervous systems. Has a role in cardioprotection by reducing cardiac hypertrophy and perivascular fibrosis in a RAMP3-dependent manner. Regulates arterial blood pressure by stimulating vasodilation and reducing vascular smooth muscle and microvascular endothelial cell proliferation. Plays a role in blood glucose homeostasis contributing to the insulin secretion response by pancreatic beta cells. Triggers mitochondrial apoptosis during pachytene spermatocyte differentiation. Stimulates uterine epithelial cell proliferation. Enhances uterine contractility in response to oxytocin. Contributes to thymic atrophy by inducing apoptosis. Attenuates TNF-mediated endothelial expression of leukocyte adhesion molecules. Promotes neurogenesis in developing hippocampal neurons. Plays a role in acute neuroprotection against NMDA-induced excitotoxic neuronal death. Increases firing activity and intracellular calcium oscillations in luteinizing hormone-releasing hormone (LHRH) neurons. Inhibits early osteoblast proliferation at growth plate during skeletal development. Inhibits mature adipocyte differentiation and lipid accumulation. Involved in the recruitment of beta-arrestin 2 ARRB2 at the plasma membrane in epithelial cells. Functions also as a receptor for aldosterone mediating rapid regulation of vascular contractility through the PI3K/ERK signaling pathway. Involved in cancer progression regulation. Stimulates cancer-associated fibroblast (CAF) proliferation by a rapid genomic response through the EGFR/ERK transduction pathway. Associated with EGFR, may act as a transcription factor activating growth regulatory genes (c-fos, cyclin D1). Promotes integrin alpha-5/beta-1 and fibronectin (FN) matrix assembly in breast cancer cells.[UniProtKB/Swiss-Prot Function]