

Product datasheet for **RG201706**

emopamil binding protein (EBP) (NM_006579) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	emopamil binding protein (EBP) (NM_006579) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	emopamil binding protein
Synonyms:	CDPX2; CHO2; CPX; CPXD; MEND
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201706 representing NM_006579 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTACCAACGCGGGCCCTTGACCCATACTGGCCTCAGCACCTAAGACTGGACAACCTTTGTACCTA
ATGACCGCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTCACAGGGGTCTTAGTCGTGACCACATG
GCTGTTGTCAGGTCGTGCTGCGGTTGTCCATTGGGGACTTGGCGGCGACTGTCCCTGTGCTGGTTTGA
GTGTGTGGTTTCATTACCTGGTATCGAGGGTGGTTCGTTCTCTACTACGAAGACCTGCTGGAGACC
AAGCCTTCTTATCTCAACTCTGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTGGGTGACAACCT
CACAGTGTGCATGAAACCATCACAGCTTGCCCTGTGGGACCACTCAGCCTGTGGGTGGTATCGCCTTT
CTCCGCCAGCATCCCCTCCGCTTATTCTACAGCTTGTGGTCTCTGTGGCCAGATCTATGGGGATGTGC
TCTACTTCTGACAGAGCACCGGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTT
TTACTTTGTCTTTCATGAATGCCCTGTGGCTGGTGTGCTGCCTGGAGTCTTGTGCTTGATGTGAAGCAC
CTCACTCATGCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG201706 representing NM_006579
 Red=Cloning site Green=Tags(s)

MTTNAGPLHPYWPQHRLDNFVFNDRPTWHILAGLFSVTGVLVTTWLLSGRAAVVPLGTWRRLSLCWFA
 VCGFIHLVIEGWFVLYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVI AF
 LRQHPLRFILQLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYVFMNALWLVLPGVLLDAVKH
 LTHAQSTLDAKATKAKSKKN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006579

ORF Size: 690 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_006579.3](#)

RefSeq Size: 1073 bp

RefSeq ORF: 693 bp

Locus ID: 10682

UniProt ID: [Q15125](#)

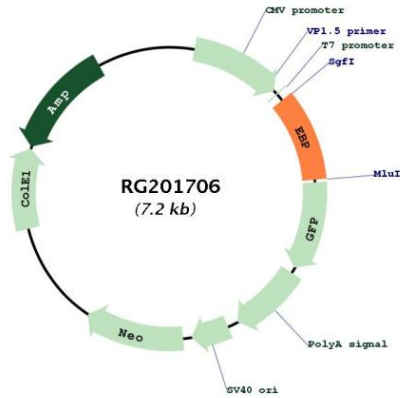
Cytogenetics: Xp11.23

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Metabolic pathways, Steroid biosynthesis

Gene Summary: The protein encoded by this gene is an integral membrane protein of the endoplasmic reticulum. It is a high affinity binding protein for the antiischemic phenylalkylamine Ca²⁺ antagonist [3H]emopamil and the photoaffinity label [3H]azidopamil. It is similar to sigma receptors and may be a member of a superfamily of high affinity drug-binding proteins in the endoplasmic reticulum of different tissues. This protein shares structural features with bacterial and eukaryotic drug transporting proteins. It has four putative transmembrane segments and contains two conserved glutamate residues which may be involved in the transport of cationic amphiphilics. Another prominent feature of this protein is its high content of aromatic amino acid residues (>23%) in its transmembrane segments. These aromatic amino acid residues have been suggested to be involved in the drug transport by the P-glycoprotein. Mutations in this gene cause Chondrodysplasia punctata 2 (CDPX2; also known as Conradi-Hunermann syndrome). [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG201706