

## Product datasheet for **RC201706**

### 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:	Myc-DDK
Symbol:	emopamil binding protein
Synonyms:	CDPX2; CHO2; CPX; CPXD; MEND
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201706 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACTACCAACGCGGGCCCTTGCACCCATACTGGCCTCAGCACCTAAGACTGGACAACCTTTGTACCTA  
ATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTCACAGGGGTCTTAGTCGTGACCACATG  
GCTGTTGTCAGGTCGTGCTGCGGTTGTCCATTGGGGACTTGGCGGCGACTGTCCCTGTGCTGGTTTGA  
GTGTGTGGTTTCATTACCTGGTATCGAGGGTGGTTCGTTCTCTACTACGAAGACCTGCTGGAGACC  
AAGCCTTCTTATCTCAACTCTGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTGGGTGACAACCT  
CACAGTGTGCATGAAACCATCACAGCTTGCCCTGTGGGACCACTCAGCCTGTGGGTGGTATCGCCTTT  
CTCCGCCAGCATCCCCTCCGCTTATTCTACAGCTTGTGGTCTCTGTGGCCAGATCTATGGGGATGTGC  
TCTACTTCTGACAGAGCACCGGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTT  
TTACTTTGTCTTTCATGAATGCCCTGTGGCTGGTGTGCTGCCTGGAGTCTTGTGCTTGATGTGAAGCAC  
CTCACTCATGCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAAC

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201706 protein sequence  
 Red=Cloning site Green=Tags(s)

MTTNAGPLHPYWPQHLRLDNFVFNDRPTWHILAGLFSVTGVLVTTWLLSGRAAVPLGTWRRLSLCWFA  
 VCGFIHLVIEGWFLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVI AF  
 LRQHPLRFILQLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYVFMNALWLVLPGVLVLDAVKH  
 LTHAQSTLDAKATKAKSKKN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6074\\_a08.zip](https://cdn.origene.com/chromatograms/mk6074_a08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_006579.3](#)

**RefSeq Size:** 1191 bp

**RefSeq ORF:** 693 bp

**Locus ID:** 10682

**UniProt ID:** [Q15125](#)

**Cytogenetics:** Xp11.23

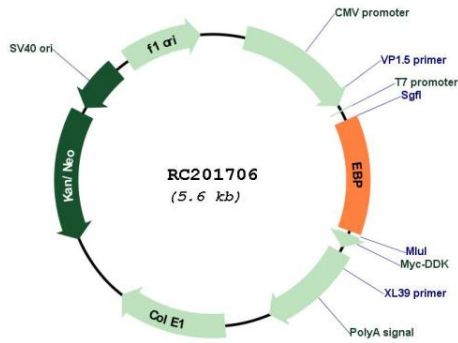
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Metabolic pathways, Steroid biosynthesis

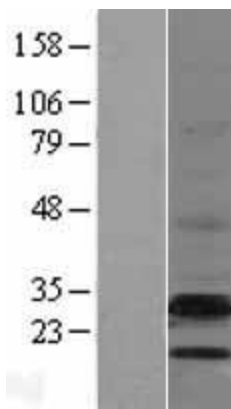
**MW:** 26.4 kDa

**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 Ca<sup>2+</sup> 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]

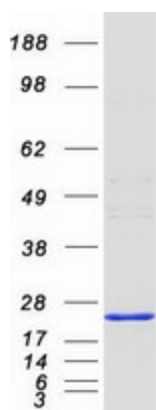
Product images:



Circular map for RC201706



Western blot validation of overexpression lysate (Cat# [LY401968]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201706 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EBP protein (Cat# [TP301706]). The protein was produced from HEK293T cells transfected with EBP cDNA clone (Cat# RC201706) using MegaTran 2.0 (Cat# [TT210002]).