

## Product datasheet for RC207753

### Encephalopsin (OPN3) (NM\_014322) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Encephalopsin (OPN3) (NM_014322) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Encephalopsin
Synonyms:	ECPN; PPP1R116
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207753 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTACTCGGGAAACCGCAGCGCGGCCACGGCTACTGGGACGGCGGGGGCCGCGGGCGCTGAGGGGC  
CGGCGCCGGCGGGGACACTGAGCCCCGCGCCCTCTTCAGCCCCGGCACCTACGAGCGCCTGGCGTGT  
GCTGGGCTCCATTGGGCTGCTGGGCGTCGGCAACAACCTGCTGGTGTCTGCTCTACTACAAGTCCAG  
CGGCTCCGCACTCCCACTCACCTCCTCCTGGTCAACATCAGCCTCAGCGACCTGCTGGTGTCCCTCTTCG  
GGGTCACCTTTACCTTCGTGCTCCTGCTGAGGAACGGCTGGGTGTGGGACACCGTGGGCTGCGTGTGGGA  
CGGGTTTAGCGGCAGCCTCTTCGGGATTGTTTCCATTGCCACCCTAACCGTGTGGCCTATGAACGTTAC  
ATTCGCGTGGTCCATGCCAGAGTGATCAATTTTTCTGGGCTGGAGGGCCATTACCTACATCTGGCTCT  
ACTCACTGGCGTGGGAGGAGCACCTCTCCTGGGATGGAACAGGTACATCCTGGAGTACACGGACTAGG  
CTGCACTGTGGACTGAAATCCAAGGATGCCAACGATTCTCCTTTGTGCTTTTCTATTCTTGGCTGC  
CTGGTGGTGGCCCTGGGTGTCATAGCCATTGCTATGGCCATATTCTATATTCCATTGCAATGCTTCGTT  
GTGTGGAAGATCTTCAGACAATCAAGTGATCAAGATTTAAAAATGAAAGAAACTGGCCAAAATGTG  
GGTCATGGTCACCTGGTCACTCCAACAATCTATTGTTTCGTACCTTTGCTAAATCGAACACTGTAT  
ACAATCCAGTATTTATGTCTTCATGATCAGAAAAGTTTCGAAAGATCCCTTTTGCAGCTTCTGTGCCTCCG  
ACTGCTGAGGTGCCAGAGGCTGCTAAAGACCTACCAGCAGCTGGAAGTAAAATGCAGATCAGACCCATT  
GTGATGTCACAGAAAGATGGGGACAGGCCAAAAGAAAAAGTGACTTTCAACTCTTCTCCATCATTTTTA  
TCATCACCAGTGATGAATCACTGTCAGTTGACGACAGCGACAAAACCAATGGGTCCAAAGTTGATGTAAT  
CCAAGTTCGTCCTTTG

**ACGGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC207753 protein sequence  
Red=Cloning site Green=Tags(s)

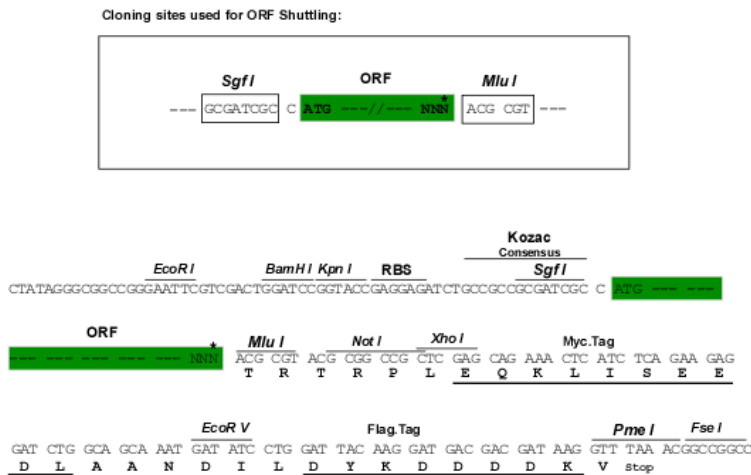
MYSGNRSGGHGYWDGGGAAGAEGPAPAGTLPAPLFPSPGTYERLALLLGSIGLLGVGNLLVLLVLYYKFQ  
 RLRTPTHLLLNIISLSDLLVSLFGVTFVSVCLRNGWVWDTVGCVWDGFGSLSFGIVSIATLTVLAYERY  
 IRVVHARVINFSWAWRAITYIWLISLAWAGAPLLGWNRYILDVHGLGCTVDWKSKDANDSSFVLFLLGC  
 LVVPLGVIAHCYGHILYSIRMLRCVEDLQTIQVIKILKEYEKLAKMCFMIFTFLVCWMPYIVICFLVVN  
 GHGHLVPTISIVSYLFAKSNVTYVNPVIYVFMIRKFRSLLQLLCLRLLRCQRPADLPAAGSEMQRPI  
 VMSQKDGDRPKKVTFNSSSIIFIITSDESLSVDDSDKNGSKVDVIQVRPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6215\\_g01.zip](https://cdn.origene.com/chromatograms/mk6215_g01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



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

**ACCN:** NM\_014322

**ORF Size:** 1206 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\\_014322.3](#)

**RefSeq Size:** 2632 bp

**RefSeq ORF:** 1209 bp

**Locus ID:** 23596

**UniProt ID:** [Q9H1Y3](#)

**Cytogenetics:** 1q43

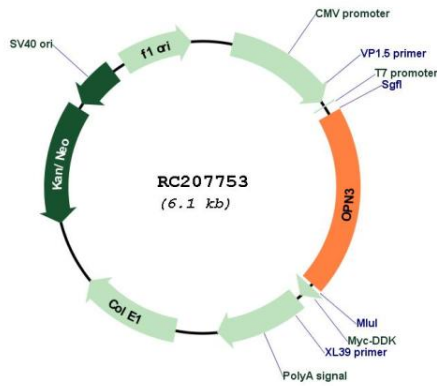
**Domains:** 7tm\_1

**Protein Families:** Druggable Genome, GPCR, Transmembrane

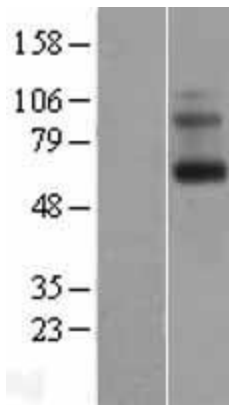
**MW:** 44.9 kDa

**Gene Summary:** Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. In addition to the visual opsins, mammals possess several photoreceptive non-visual opsins that are expressed in extraocular tissues. This gene, opsin 3, is strongly expressed in brain and testis and weakly expressed in liver, placenta, heart, lung, skeletal muscle, kidney, and pancreas. The gene may also be expressed in the retina. The protein has the canonical features of a photoreceptive opsin protein. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207753



Western blot validation of overexpression lysate (Cat# [LY415363]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207753 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).