

## Product datasheet for **RC223519L4V**

### Melanopsin (OPN4) (NM\_033282) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Melanopsin (OPN4) (NM_033282) Human Tagged ORF Clone Lentiviral Particle
Symbol:	Melanopsin
Synonyms:	MOP
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_033282
ORF Size:	1434 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC223519).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_033282.2</a>
RefSeq Size:	2386 bp
RefSeq ORF:	1437 bp
Locus ID:	94233
UniProt ID:	<a href="#">Q9UHM6</a>
Cytogenetics:	10q23.2
Protein Families:	Druggable Genome, Transmembrane
MW:	52.7 kDa


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**Gene Summary:**

Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. This gene encodes a photoreceptive opsin protein that is expressed within the ganglion and amacrine cell layers of the retina. In mouse, retinal ganglion cell axons expressing this gene projected to the suprachiasmatic nucleus and other brain nuclei involved in circadian photoentrainment. In mouse, this protein is coupled to a transient receptor potential (TRP) ion channel through a G protein signaling pathway and produces a physiologic light response via membrane depolarization and increased intracellular calcium. The protein functions as a sensory photopigment and may also have photoisomerase activity. Experiments with knockout mice indicate that this gene attenuates, but does not abolish, photoentrainment. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]