

Product datasheet for **MR215745L4V**

Ptprn2 (NM_011215) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Ptprn2 (NM_011215) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Ptprn2
Synonyms:	4930425H11Rik; IA2beta; mKIAA0387; phogrin; Phol; PTP-NP
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_011215
ORF Size:	3006 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR215745).
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.
RefSeq:	NM_011215.2 , NP_035345.2
RefSeq Size:	4688 bp
RefSeq ORF:	3006 bp
Locus ID:	19276
UniProt ID:	P80560
Cytogenetics:	12 62.65 cM



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Gene Summary:

Plays a role in vesicle-mediated secretory processes (PubMed:21732083). Required for normal accumulation of secretory vesicles in hippocampus, pituitary and pancreatic islets. Required for the accumulation of normal levels of insulin-containing vesicles and preventing their degradation (PubMed:21732083). Plays a role in insulin secretion in response to glucose stimuli (PubMed:15220191, PubMed:16418280, PubMed:21732083). Required for normal accumulation of the neurotransmitters norepinephrine, dopamine and serotonin in the brain. In females, but not in males, required for normal accumulation and secretion of pituitary hormones, such as luteinizing hormone (LH) and follicle-stimulating hormone (FSH) (PubMed:16269463). Required to maintain normal levels of renin expression and renin release (PubMed:19019914). May regulate catalytic active protein-tyrosine phosphatases such as PTPRA through dimerization (PubMed:12364328). Has phosphatidylinositol phosphatase activity; the PIPase activity is involved in its ability to regulate insulin secretion. Can dephosphorylate phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), phosphatidylinositol 5-phosphate and phosphatidylinositol 3-phosphate (By similarity). Regulates PI(4,5)P2 level in the plasma membrane and localization of cofilin at the plasma membrane and thus is indirectly involved in regulation of actin dynamics related to cell migration and metastasis; upon hydrolyzation of PI(4,5)P2 cofilin is released from the plasma membrane and acts in the cytoplasm in severing F-actin filaments (By similarity).[UniProtKB/Swiss-Prot Function]