

#### OriGene Technologies, Inc.

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# Product datasheet for MR208187L4V

## P4hb (NM\_011032) Mouse Tagged ORF Clone Lentiviral Particle

### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	P4hb (NM_011032) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	P4hb
Synonyms:	ERp59; PDI; Pdia1; Thbp
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_011032
ORF Size:	1530 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR208187).
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. <u>More info</u>
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:	<u>NM 011032.2</u>
RefSeq Size:	2538 bp
RefSeq ORF:	1530 bp
Locus ID:	18453
UniProt ID:	<u>P09103</u>
Cytogenetics:	11 84.27 cM



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Gene Summary:

This multifunctional protein catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. May therefore cause structural modifications of exofacial proteins. Inside the cell, seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, facilitates aggregation (anti-chaperone activity). May be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. Also acts a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP (By similarity). Receptor for LGALS9; the interaction retains P4HB at the cell surface of Th2 T helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration (PubMed:21670307).[UniProtKB/Swiss-Prot Function]

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