

## Product datasheet for **TR310055**

### PTPRB Human shRNA Plasmid Kit (Locus ID 5787)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	PTPRB Human shRNA Plasmid Kit (Locus ID 5787)
Locus ID:	5787
Synonyms:	HPTP-BETA; HPTPB; PTPB; R-PTP-BETA; VEPTP
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	PTPRB - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 5787). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001109754</a> , <a href="#">NM_001206971</a> , <a href="#">NM_001206972</a> , <a href="#">NM_001330204</a> , <a href="#">NM_002837</a> , <a href="#">NM_002837.1</a> , <a href="#">NM_002837.2</a> , <a href="#">NM_002837.3</a> , <a href="#">NM_002837.4</a> , <a href="#">NM_002837.5</a> , <a href="#">NM_001109754.1</a> , <a href="#">NM_001109754.2</a> , <a href="#">NM_001109754.3</a> , <a href="#">NM_001206971.1</a> , <a href="#">NM_001206971.2</a> , <a href="#">NM_001206972.1</a> , <a href="#">NM_001206972.2</a> , <a href="#">BC043182</a> , <a href="#">BC051329</a> , <a href="#">BC101679</a> , <a href="#">BC113463</a> , <a href="#">BC143356</a> , <a href="#">BC143360</a> , <a href="#">NM_001109754.4</a>
UniProt ID:	<a href="#">P23467</a>
Summary:	The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and one intracytoplasmic catalytic domain, thus belongs to receptor type PTP. The extracellular region of this PTP is composed of multiple fibronectin type_III repeats, which was shown to interact with neuronal receptor and cell adhesion molecules, such as contactin and tenascin C. This protein was also found to interact with sodium channels, and thus may regulate sodium channels by altering tyrosine phosphorylation status. The functions of the interaction partners of this protein implicate the roles of this PTP in cell adhesion, neurite growth, and neuronal differentiation. Alternate transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2011]



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<b>shRNA Design:</b>	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .
<b>Performance Guaranteed:</b>	<p>OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.</p> <p>For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p>