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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

# PTPLB siRNA (m): sc-152585

## BACKGROUND

PTPLB (protein tyrosine phosphatase-like (proline instead of catalytic arginine), member b) is a 254 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum. Highly expressed in testis, spleen, prostate, colon and heart, PTPLB is a member of the protein tyrosine phosphatase (PTP) family of proteins, which are known to be signaling molecules that regulate signal transduction pathways leading to cell growth, differentiation and oncogenic transformation. PTPs mediate the dephosphorylation of phosphotyrosine. PTPLB is a probable anti-phosphatase that interacts with BAP31, an integral membrane protein of the endoplasmic reticulum that operates as a chaperone or cargo receptor and regulator of apoptosis. PTPLB is encoded by a gene located on human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

## REFERENCES


1. Krueger, N.X., et al. 1990. Structural diversity and evolution of human receptor-like protein tyrosine phosphatases. EMBO J. 9: 3241-3252.
2. den Hertog, J., et al. 1995. Stimulation of receptor protein-tyrosine phosphatase α activity and phosphorylation by phorbol ester. Cell Growth Differ. 6: 303-307.
3. Zondag, G.C., et al. 1995. Homophilic interactions mediated by receptor tyrosine phosphatases μ and κ. A critical role for the novel extracellular MAM domain. J. Biol. Chem. 270: 14247-14250.
4. Uwanogho, D.A., et al. 1999. Molecular cloning, chromosomal mapping, and developmental expression of a novel protein tyrosine phosphatase-like gene. Genomics 62: 406-416.
5. Li, D., et al. 2000. Human protein tyrosine phosphatase-like gene: expression profile, genomic structure, and mutation analysis in families with ARVD. Gene 256: 237-243.
6. Wang, B., et al. 2004. The yeast split-ubiquitin membrane protein two-hybrid screen identifies BAP31 as a regulator of the turnover of endoplasmic reticulum-associated protein tyrosine phosphatase-like B. Mol. Cell. Biol. 24: 2767-2778.
7. Tozlu-Kara, S., et al. 2007. Oligonucleotide microarray analysis of estrogen receptor α-positive postmenopausal breast carcinomas: identification of HRPAP20 and TIMELESS as outstanding candidate markers to predict the response to tamoxifen. J. Mol. Endocrinol. 39: 305-318.


## CHROMOSOMAL LOCATION

Genetic locus: Ptplb (mouse) mapping to 16 B3.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

## PRODUCT

PTPLB siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PTPLB shRNA Plasmid (m): sc-152585-SH and PTPLB shRNA (m) Lentiviral Particles: sc-152585-V as alternate gene silencing products.

For independent verification of PTPLB (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152585A, sc-152585B and sc-152585C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

PTPLB siRNA (m) is recommended for the inhibition of PTPLB expression in mouse cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PTPLB gene expression knockdown using RT-PCR Primer: PTPLB (m)-PR: sc-152585-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.