SANTA CRUZ BIOTECHNOLOGY, INC.

# PLP2 siRNA (h): sc-90929

## BACKGROUND

Proteolipid protein 2, also known as PLP2 or A4, is a 152 amino acid, multi-pass transmembrane protein containing a MARVEL (MAL and related proteins for vesicle trafficking and membrane link) domain. Proteins containing the MARVEL domain have an M-shaped topology, with four transmembrane-helix regions and cytoplasmic N- and C-terminal regions. Localized to the membrane, PLP2 is highly enriched in colonic mucosa and is expressed in a gradient along the crypto-villus axis, with the most abundant expression in the lower half of the crypt. PLP2 has been thought to play a role in chemotaxis and cell differentiation in the intestinal epithelium. PLP2 has also been found in the pyramidal cells of hippocampus and granular cells of the cerebellum and has been implicated in X-linked mental retardation.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: PLP2 (human) mapping to Xp11.23.

## 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

PLP2 siRNA (h) 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 PLP2 shRNA Plasmid (h): sc-90929-SH and PLP2 shRNA (h) Lentiviral Particles: sc-90929-V as alternate gene silencing products.

For independent verification of PLP2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-90929A, sc-90929B and sc-90929C.

## 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

PLP2 siRNA (h) is recommended for the inhibition of PLP2 expression in human 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 PLP2 gene expression knockdown using RT-PCR Primer: PLP2 (h)-PR: sc-90929-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.