

# ZPLD1 siRNA (h): sc-78484

## BACKGROUND

Many proteins containing ZP (zona pellucida) domains play fundamental roles in development, immunity, hearing and cancer. These domains are located near the carboxy-terminus of the polypeptide and typically consist of approximately 260 amino acids. ZP domain-containing proteins are often glycosylated and are usually present in filaments or matrices and therefore are thought to be involved in protein polymerization. ZPLD1 (zona pellucida-like domain-containing protein 1) is a 415 amino acid single-pass transmembrane protein that contains one ZP domain. The gene encoding ZPLD1 maps to human chromosome 3, which is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. There are two isoforms of ZPLD1 that are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ZPLD1 (human) mapping to 3q12.3.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PRODUCT

ZPLD1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZPLD1 shRNA Plasmid (h): sc-78484-SH and ZPLD1 shRNA (h) Lentiviral Particles: sc-78484-V as alternate gene silencing products.

For independent verification of ZPLD1 (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-78484A, sc-78484B and sc-78484C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

ZPLD1 siRNA (h) is recommended for the inhibition of ZPLD1 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  $\mu$ M in 66  $\mu$ l. 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 ZPLD1 gene expression knockdown using RT-PCR Primer: ZPLD1 (h)-PR: sc-78484-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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