SANTA CRUZ BIOTECHNOLOGY, INC.

# Mystique siRNA (h): sc-75856

## BACKGROUND

Mystique, also known as PDLIM2 (PDZ and LIM domain protein 2), PP6345 or SLIM, is a 352 amino acid protein that contains one LIM zinc-binding domain and one PDZ domain. Expressed as four isoforms that localize to either the cytoplasm/cytoskeleton or to the nucleus, Mystique is thought to function as an adapter protein that promotes cell attachment at the actin cytoskeleton. Mystique interacts with α-actinin-1 and α-actinin-4 and, in addition to its role in cell-cell interactions, is necessary for the proper migration of epithelial cells. Overexpression of Mystique suppresses anchorage-independent growth and enhances cell adhesion to Fibronectin and collagen (COL), an event that may facilitate the migratory capabilities of certain tumors. Due to its ability to enhance tumor migration, Mystique is thought to play a role in the progression of breast cancer and other malignant carcinomas.

## REFERENCES


1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609722. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Shin, B.K., et al. 2003. Global profiling of the cell surface proteome of cancer cells uncovers an abundance of proteins with chaperone function. J. Biol. Chem. 278: 7607-7616.
3. Torrado, M., et al. 2004. PDLIM2, a novel PDZ-LIM domain protein, interacts with α-actinins and filamin A. Invest. Ophthalmol. Vis. Sci. 45: 3955-3963.
4. Wan, D., et al. 2004. Large-scale cDNA transfection screening for genes related to cancer development and progression. Proc. Natl. Acad. Sci. USA 101: 15724-15729.
5. Tanaka, T., et al. 2005. SLIM is a nuclear ubiquitin E3 ligase that negatively regulates Stat signaling. Immunity 22: 729-736.
6. Loughran, G., et al. 2005. Mystique is a new Insulin-like growth factor-I-regulated PDZ-LIM domain protein that promotes cell attachment and migration and suppresses Anchorage-independent growth. Mol. Biol. Cell 16: 1811-1822.
7. Tanaka, T., et al. 2007. PDLIM2-mediated termination of transcription factor NFκB activation by intranuclear sequestration and degradation of the p65 subunit. Nat. Immunol. 8: 584-591.


## CHROMOSOMAL LOCATION

Genetic locus: PDLIM2 (human) mapping to 8p21.3.

## PRODUCT

Mystique siRNA (h) is a target-specific 19-25 nt siRNA 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 Mystique shRNA Plasmid (h): sc-75856-SH and Mystique shRNA (h) Lentiviral Particles: sc-75856-V as alternate gene silencing products.

## RESEARCH USE

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

## 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

Mystique siRNA (h) is recommended for the inhibition of Mystique 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.

## GENE EXPRESSION MONITORING

Mystique (B-8): sc-515630 is recommended as a control antibody for monitoring of Mystique gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Mystique gene expression knockdown using RT-PCR Primer: Mystique (h)-PR: sc-75856-PR (20 µl, 470 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS


1. Kang, M., et al. 2016. PDLIM2 suppression efficiently reduces tumor growth and invasiveness of human castration-resistant prostate cancer-like cells. Prostate 76: 273-285.


## PROTOCOLS

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