SANTA CRUZ BIOTECHNOLOGY, INC.

HORMAD1 siRNA (h): sc-75273

BACKGROUND

HORMAD1 (HORMA domain containing 1), also known as NOHMA (Newborn Ovary HORMA protein) or CT46 (Cancer/Testis antigen 46), is a 394 amino acid testis-specific protein. HORMAD1 contains one HORMA (Hop1p, Rev7p and MAD2) domain (a domain involved in chromatin binding) that makes up the entire full-length sequence of the protein. Proteins with HORMA domains are typically involved in modulating chromatin dynamics and structure. The HORMA domain is believed to act as an adaptor, recruiting other proteins to chromatin states that result from nonattachment to the mitotic spindle or from DNA double-strand breaks. HORMAD1 is a putative meiotic protein, as is suggested by its 25.8% homology with the yeast protein Hop1 (a meiosis-specific protein). In addition, HORMAD1 is overexpressed in a variety of carcinomas, including breast, lung, endometrial, colon, bladder and esophageal cancers.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HORMAD1 (human) mapping to 1q21.3.

PRODUCT

HORMAD1 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 HORMAD1 shRNA Plasmid (h): sc-75273-SH and HORMAD1 shRNA (h) Lentiviral Particles: sc-75273-V as alternate gene silencing products.

For independent verification of HORMAD1 (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-75273A, sc-75273B and sc-75273C.

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

HORMAD1 siRNA (h) is recommended for the inhibition of HORMAD1 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

HORMAD1 (GG-Y): sc-101235 is recommended as a control antibody for monitoring of HORMAD1 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor HORMAD1 gene expression knockdown using RT-PCR Primer: HORMAD1 (h)-PR: sc-75273-PR (20 µl). 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.

PROTOCOLS

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