SANTA CRUZ BIOTECHNOLOGY, INC.

HA-8 siRNA (h): sc-92538

BACKGROUND

Major histocompatibility complex (MHC) molecules, which include human leukocyte antigens (HLAs), form an integral part of the immune response system. They are cell-surface receptors that bind foreign peptides and present them to cytotoxic T lymphocytes (CTLs). Minor histocompatibility antigens can form an immune response upon recognition by certain T-cells when complexed with MHC molecules. HA-8 (histocompatibility antigen-8), also known as XTP5 (HBV X-transactivated gene 5 protein), PUF6, PEN, HLA-HA8 or KIAA0020, is a 648 amino acid nuclear protein that contains six pumilio repeats and one PUM-H (pumilio homology) domain. The pumilio repeat is an imperfectly repeated 36 amino acid motif that is flanked by short N- and C-terminal regions which, together, comprise the PUM-H domain. Proteins that contain PUM-H domains usually exhibit sequence-specific RNA binding capabilities and often play a role in repressing the translation of select mRNAs. Expressed ubiquitously with highest expression in liver, kidney, lung, colon, ovary and testis, HA-8 contains a histocompatibility antigen-8 region that can be cleaved and exposed at the cell surface, where it may function as a minor histocompatibility antigen. Due to the presence of a PUM-H domain, HA-8 may be involved in the regulation of translation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KIAA0020 (human) mapping to 9p24.2.

PRODUCT

HA-8 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 HA-8 shRNA Plasmid (h): sc-92538-SH and HA-8 shRNA (h) Lentiviral Particles: sc-92538-V as alternate gene silencing products.

For independent verification of HA-8 (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-92538A, sc-92538B and sc-92538C.

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

HA-8 siRNA (h) is recommended for the inhibition of HA-8 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 HA-8 gene expression knockdown using RT-PCR Primer: HA-8 (h)-PR: sc-92538-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.