SANTA CRUZ BIOTECHNOLOGY, INC.

Histatin 1 siRNA (h): sc-105455

BACKGROUND

Histatin 1 is a histidine-rich phosphoprotein present in human parotid saliva that possesses candidacidal activity and functions in mineralization by adsorbing to hydroxyapatite. Phosphorylation of Histatin 1 contributes to its ability to bind hydroxyapatite. Salivary histatins are a family of small histidine-rich peptides with potent antifungal activity. Submandibular and sublingual histatin secretion levels may affect the status of yeast present in the mouth. As a result, histatins have been implicated as potential therapeutic agents against oral candidiasis. A decrease in salivary histatins in relation to total salivary protein is common in old age and can influence the ability of the oral host defense system to address pathogens.

REFERENCES

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3. Driscoll, J., et al. 1995. Functional comparison of native and recombinant human salivary Histatin 1. J. Dent. Res 74: 1837-1844.
4. Koshlukova, S.E., et al. 1999. Salivary Histatin 5 induces non-lytic release of ATP from *Candida albicans* leading to cell death. J. Biol. Chem. 274: 18872-18879.
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6. Li, X.S., et al. 2003. Candida albicans Ssa1/2p is the cell envelope binding protein for human salivary Histatin 5. J. Biol. Chem. 278: 28553-28561.
7. Castagnola, M., et al. 2004. A cascade of 24 histatins (Histatin 3 fragments) in human saliva. Suggestions for a pre-secretory sequential cleavage pathway. J. Biol. Chem. 279: 41436-41443.
8. Baev, D., et al. 2004. The TRK1 potassium transporter is the critical effector for killing of *Candida albicans* by the cationic protein, Histatin 5. J. Biol. Chem. 279: 55060-55072.
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CHROMOSOMAL LOCATION

Genetic locus: HTN1 (human) mapping to 4q13.3.

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

Histatin 1 siRNA (h) is a pool of 2 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 Histatin 1 shRNA Plasmid (h): sc-105455-SH and Histatin 1 shRNA (h) Lentiviral Particles: sc-105455-V as alternate gene silencing products.

For independent verification of Histatin 1 (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-105455A and sc-105455B.

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

Histatin 1 siRNA (h) is recommended for the inhibition of Histatin 1 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 Histatin 1 gene expression knockdown using RT-PCR Primer: Histatin 1 (h)-PR: sc-105455-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.