

CRIP1 siRNA (h): sc-92384

BACKGROUND

The LIM gene family is comprised of over 40 members in vertebrates and invertebrates, which are characterized by the presence of a LIM domain, a unique cysteine-rich zinc-binding domain. Proteins containing LIM domains are often involved in mediating cell differentiation. CRIP1 (Cysteine-rich intestinal protein), also designated Cysteine-rich protein 1 (CRP-1) or Cysteine-rich heart protein (CRHP), contains one LIM domain and is highly expressed in intestine, immune cells, prostate, colon, brain and testis. CRIP1 is thought to play a role in proliferation and differentiation of cells with rapid turnover, such as those found in the intestine and immune system. CRIP1 has also been identified as a novel marker for the early detection of cancers.

REFERENCES

1. Tsui, S.K., Yam, N.Y., Lee, C.Y. and Waye, M.M. 1994. Isolation and characterization of a cDNA that codes for a LIM-containing protein which is developmentally regulated in heart. *Biochem. Biophys. Res. Commun.* 205: 497-505.
2. Perez-Alvarado, G.C., Kosa, J.L., Louis, H.A., Beckerle, M.C., Winge, D.R. and Summers, M.F. 1996. Structure of the cysteine-rich intestinal protein, CRIP. *J. Mol. Biol.* 257: 153-174.
3. Khoo, C., Blanchard, R.K., Sullivan, V.K. and Cousins, R.J. 1997. Human cysteine-rich intestinal protein: cDNA cloning and expression of recombinant protein and identification in human peripheral blood mononuclear cells. *Protein Expr. Purif.* 9: 379-387.
4. Dube, J.Y., Chapdelaine, P., Trahan, P.L., Deperthes, D., Frenette, G. and Tremblay, R.R. 1998. Abundant cysteine-rich protein-1 is localized in the stromal compartment of the human prostate. *Arch. Androl.* 40: 109-115.
5. Davis, B.A., Blanchard, R.K., Lanningham-Foster, L. and Cousins, R.J. 1998. Structural characterization of the rat cysteine-rich intestinal protein gene and overexpression of this LIM-only protein in transgenic mice. *DNA Cell Biol.* 17: 1057-1064.
6. Garcia-Barcelo, M., Tsui, S.K., Chim, S.S., Fung, K.P., Lee, C.Y. and Waye, M.M. 1998. Mapping of the human cysteine-rich intestinal protein gene CRIP1 to the human chromosomal segment 7q11.23. *Genomics* 47: 419-422.
7. Cousins, R.J. and Lanningham-Foster, L. 2000. Regulation of cysteine-rich intestinal protein, a zinc finger protein, by mediators of the immune response. *J. Infect. Dis.* 182: S81-S84.
8. Hao, J., Serohijos, A.W., Newton, G., Tassone, G., Wang, Z., Sgroi, D.C., Dokholyan, N.V. and Basilion, J.P. 2008. Identification and rational redesign of peptide ligands to CRIP1, a novel biomarker for cancers. *PLoS Comput. Biol.* 4: e1000138.

CHROMOSOMAL LOCATION

Genetic locus: CRIP1 (human) mapping to 14q32.33.

PROTOCOLS

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

PRODUCT

CRIP1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CRIP1 shRNA Plasmid (h): sc-92384-SH and CRIP1 shRNA (h) Lentiviral Particles: sc-92384-V as alternate gene silencing products.

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

APPLICATIONS

CRIP1 siRNA (h) is recommended for the inhibition of CRIP1 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 μ M in 66 μ 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.

RESEARCH USE

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