

MVB12A siRNA (h): sc-97374

BACKGROUND

CFBP (CIN85/CD2AP family-binding protein), also known as FAM125A (family with sequence similarity 125 member A), or MVB12A is a 273 amino acid protein that localizes to both the cytoplasm and the nucleus and exists as multiple alternatively spliced isoforms. Expressed in nearly all tissues, with the exception of skeletal muscle, CFBP interacts with CD2AP and CIN85 and is thought to be involved in the ligand-mediated internalization and down-regulation of EGFR. Human CFBP is subject to phosphorylation on Tyr-204, an event that is necessary for proper interaction with CD2AP and CIN85. The gene encoding CFBP maps to human chromosome 19, which is the genetic home for a number of immunoglobulin superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

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3. Kowanetz, K., et al. 2003. Identification of a novel proline-arginine motif involved in CIN85-dependent clustering of Cbl and down-regulation of epidermal growth factor receptors. *J. Biol. Chem.* 278: 39735-39746.
4. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
5. Konishi, H., et al. 2006. CFBP is a novel tyrosine-phosphorylated protein that might function as a regulator of CIN85/CD2AP. *J. Biol. Chem.* 281: 28919-28931.
6. Konishi, H. 2007. Proteomic identification of the new functional proteins in the EGF receptor-mediated signaling pathway. *Seikagaku* 79: 781-785.
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CHROMOSOMAL LOCATION

Genetic locus: MVB12A (human) mapping to 19p13.11.

PRODUCT

MVB12A 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MVB12A shRNA Plasmid (h): sc-97374-SH and MVB12A shRNA (h) Lentiviral Particles: sc-97374-V as alternate gene silencing products.

For independent verification of MVB12A (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-97374A, sc-97374B and sc-97374C.

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 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

MVB12A siRNA (h) is recommended for the inhibition of MVB12A 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MVB12A gene expression knockdown using RT-PCR Primer: MVB12A (h)-PR: sc-97374-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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