FAM150B siRNA (h): sc-94635



The Power to Question

BACKGROUND

FAM150B (family with sequence similarity 150, member B), also known as PRO1097 or RGPG542, is a 152 amino acid secreted protein belonging to the FAM150 family. Existing as two alternatively spliced isoforms, FAM150B is suggested to activate signaling of orphan receptors, leukocyte tyrosine kinase (LTK) and anaplastic lymphoma kinase (ALK). LTK is suggested to participate in regulating secretory pathway involving endoplasmic reticulum export sites (ERESs) and ER to Golgi transport while ALK is thought to be an important regulator of normal blood vessel development. FAM150B is encoded by a gene located on human chromosome 2, which is considered the second largest human chromosome consisting of 237 million bases encoding over 1,400 genes and making up approximately 8% of the human genome.

REFERENCES

- Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
- 2. Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. Hum. Genet. 89: 247-249.
- Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
- Thomas, A.C., et al. 2006. ABCA12 is the major harlequin ichthyosis gene.
 J. Invest. Dermatol. 126: 2408-2413.
- Farhan, H., et al. 2010. MAPK signaling to the early secretory pathway revealed by kinase/phosphatase functional screening. J. Cell Biol. 189: 997-1011.
- Townson, S.A., et al. 2012. Specificity and structure of a high affinity activin receptor-like kinase 1 (ALK1) signaling complex. J. Biol. Chem. 287: 27313-27325.
- Zhang, H., et al. 2014. Deorphanization of the human leukocyte tyrosine kinase (LTK) receptor by a signaling screen of the extracellular proteome. Proc. Natl. Acad. Sci. USA 111: 15741-15745.
- Guan, J., et al. 2015. FAM150A and FAM150B are activating ligands for anaplastic lymphoma kinase. Elife 4: e09811.

CHROMOSOMAL LOCATION

Genetic locus: FAM150B (human) mapping to 2p25.3.

PRODUCT

FAM150B 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 FAM150B shRNA Plasmid (h): sc-94635-SH and FAM150B shRNA (h) Lentiviral Particles: sc-94635-V as alternate gene silencing products.

For independent verification of FAM150B (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-94635A, sc-94635B and sc-94635C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20 $^{\circ}$ C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20 $^{\circ}$ 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

FAM150B siRNA (h) is recommended for the inhibition of FAM150B 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 FAM150B gene expression knockdown using RT-PCR Primer: FAM150B (h)-PR: sc-94635-PR (20 μ l). 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com