SANTA CRUZ BIOTECHNOLOGY, INC.

Gab 4 siRNA (h): sc-75080

BACKGROUND

The Gab (GRB2-associated binder)/DOS ("Daughter of Sevenless") family of adaptor proteins function as molecular scaffolds that mediate protein recruitment to RTKs. Cytokine/growth factor triggering of protein tyrosine kinase receptors (RTKs) initiates signaling cascades that progress to the nucleus where signals for activation, proliferation and differentiation occur. This scaffolding mechanism represents a critical link in cytokine/growth factor signaling routes. Gab 1-4 contain Pleckstrin homology and potential binding sites for SH2 and SH3 domain-containing proteins. The recruitment of signaling partners to Gab family members is phosphorylation-dependent. Insulin receptor and EGF receptor signaling are among the cascades that rely on Gab family members to elicit a nuclear response to an extracellular stimulus. Gab 4 (GRB2-associated-binding protein 4), also designated GRB2-associated-binding protein 2-like (Gab 2-like), is a 574 amino acid protein that shares 62% sequence similarity with Gab 2 and contains one Pleckstrin homology domain.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: GAB4 (human) mapping to 22q11.1.

PRODUCT

Gab 4 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 Gab 4 shRNA Plasmid (h): sc-75080-SH and Gab 4 shRNA (h) Lentiviral Particles: sc-75080-V as alternate gene silencing products.

For independent verification of Gab 4 (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-75080A, sc-75080B and sc-75080C.

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

Gab 4 siRNA (h) is recommended for the inhibition of Gab 4 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 Gab 4 gene expression knockdown using RT-PCR Primer: Gab 4 (h)-PR: sc-75080-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.