



PLEKHF2 siRNA (m): sc-152310

BACKGROUND

PLEKHF2 (Pleckstrin homology domain-containing family F member 2), also known as Phafin-2 and zinc finger FYVE domain-containing protein 18 (ZFYE18), is a 249 amino acid protein that contains an N-terminal PH domain and a C-terminal FYVE-type domain. The PH (Pleckstrin homology) domain is found in proteins that are involved in intracellular signaling and the FYVE domain is a zinc finger that binds two zinc ions. Some FYVE domains are capable of specifically binding to phosphatidylinositol 3-phosphate in lipid bilayers, suggesting that such proteins may be involved in regulating membrane traffic. PLEKHF2 is a member of the Phafin (protein containing both PH and FYVE domains) protein family. Other Phafins, such as PLEKHF1, induce caspase-independent apoptosis and increase cell sensitivity to TNF α -induced apoptosis through their PH and FYVE domains.

REFERENCES

1. Haslam, R.J., et al. 1993. Pleckstrin domain homology. *Nature* 363: 309-310.
2. Ingley, E., et al. 1994. Pleckstrin homology (PH) domains in signal transduction. *J. Cell. Biochem.* 56: 436-443.
3. Sankaran, V.G., et al. 2001. High-affinity binding of a FYVE domain to phosphatidylinositol 3-phosphate requires intact phospholipid but not FYVE domain oligomerization. *Biochemistry* 40: 8581-8587.
4. Laity, J.H., et al. 2001. Zinc-finger proteins: new insights into structural and functional diversity. *Curr. Opin. Struct. Biol.* 11: 39-46.

CHROMOSOMAL LOCATION

Genetic locus: *Plekfh2* (mouse) mapping to 4 A1.

PRODUCT

PLEKHF2 siRNA (m) 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 PLEKHF2 shRNA Plasmid (m): sc-152310-SH and PLEKHF2 shRNA (m) Lentiviral Particles: sc-152310-V as alternate gene silencing products.

For independent verification of PLEKHF2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152310A, sc-152310B and sc-152310C.

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

PLEKHF2 siRNA (m) is recommended for the inhibition of PLEKHF2 expression in mouse 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 PLEKHF2 gene expression knockdown using RT-PCR Primer: PLEKHF2 (m)-PR: sc-152310-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.