SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF569 siRNA (m): sc-63254

BACKGROUND

Zinc finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF569 (zinc finger protein 569), also known as ZAP1, is a 686 amino acid member of the Krüppel C_2H_2-type zinc finger protein family and is thought be involved in transcriptional regulation. Localized to the nucleus, ZNF569 contains one KRAB domain and 18 C_2H_2-type zinc fingers through which it may convey DNA, RNA and protein binding capabilities.

REFERENCES

1. Kato, N., et al. 1990. Human proviral mRNAs down regulated in chorio-carcinoma encode a zinc finger protein related to Krüppel. Mol. Cell. Biol. 10: 4401-4405.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
3. Bray, P., et al. 1991. Charac-terization and mapping of human genes encoding zinc finger proteins. Proc. Natl. Acad. Sci. USA 88: 9563-9567.
4. Huebner, K., et al. 1991. Twenty-seven nonoverlapping zinc finger cDNAs from human T cells map to nine different chromosomes with apparent clustering. Am. J. Hum. Genet. 48: 726-740.
5. Lichter, P., et al. 1992. Clustering of C_2H_2 zinc finger motif sequences within telomeric and fragile site regions of human chromosomes. Genomics 13: 999-1007.
6. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C_2H_2 zinc finger proteins in the *Arabidopsis thaliana* genome. BMC Genomics 5: 39-39.
7. Huang, X., et al. 2006. ZNF569, a novel KRAB-containing zinc finger protein, suppresses MAPK signaling pathway. Biochem. Biophys. Res. Commun. 346: 621-628.

CHROMOSOMAL LOCATION

Genetic locus: Zfp74 (mouse) mapping to 7 B1.

PRODUCT

ZNF569 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZNF569 shRNA Plasmid (m): sc-63254-SH and ZNF569 shRNA (m) Lentiviral Particles: sc-63254-V as alternate gene silencing products.

For independent verification of ZNF569 (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-63254A, sc-63254B and sc-63254C.

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 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

ZNF569 siRNA (m) is recommended for the inhibition of ZNF569 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 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 ZNF569 gene expression knockdown using RT-PCR Primer: ZNF569 (m)-PR: sc-63254-PR (20 µl). 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.