SANTA CRUZ BIOTECHNOLOGY, INC.

ZFYVE28 siRNA (h): sc-89030

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. ZFYVE28 (zinc finger FYVE domain-containing protein 28), also known as LST2 (lateral signaling target protein 2 homolog), is an 887 amino acid protein that contains one FYVE-type zinc finger, which mediates the interaction with PI3P (phosphatidylinositol 3-phosphate). ZFYVE28 functions as a negative regulator of EGFR (epidermal growth factor receptor) by promoting its degradation in endosomes when not monoubiquinated on Lys-87. In the absence of monoubiquination, ZFYVE28 localizes to the early endosome membrane, while it localizes to the cytosol when it is monoubiquinated. There are five isoforms of ZFYVE28 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ZFYVE28 (human) mapping to 4p16.3.

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.

PRODUCT

ZFYVE28 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 ZFYVE28 shRNA Plasmid (h): sc-89030-SH and ZFYVE28 shRNA (h) Lentiviral Particles: sc-89030-V as alternate gene silencing products.

For independent verification of ZFYVE28 (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-89030A, sc-89030B and sc-89030C.

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

ZFYVE28 siRNA (h) is recommended for the inhibition of ZFYVE28 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 ZFYVE28 gene expression knockdown using RT-PCR Primer: ZFYVE28 (h)-PR: sc-89030-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.