SANTA CRUZ BIOTECHNOLOGY, INC.

tepsin siRNA (m): sc-108729

BACKGROUND

Tepsin, also known as C17orf56 or ENTHD2 (ENTH domain-containing protein 2), is a 525 amino acid protein that contains one ENTH (epsin N-terminal homology) domain. Localizing to the cytoplasm, tepsin colocalizes with AP-4 (adapter-like complex 4) in a punctate juxtanuclear pattern. AP-4 exists as a heterotetramer, and must be functional for tepsin recruitment to the cytoplasmic vesicle membrane. Existing as two alternatively spliced isoforms, tepsin is encoded by a gene that maps to human chromosome 17q25.3 and mouse chromosome 11 E2. Chromosome 17 makes up over 2.5% of the human genome with approximately 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Chromosome 17 is also linked to neurofibromatosis, a condition characterized by neural and epidermal lesions, and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Enthd2 (mouse) mapping to 11 E2.

PRODUCT

tepsin 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 tepsin shRNA Plasmid (m): sc-108729-SH and tepsin shRNA (m) Lentiviral Particles: sc-108729-V as alternate gene silencing products.

For independent verification of tepsin (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-108729A, sc-108729B and sc-108729C.

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

tepsin siRNA (m) is recommended for the inhibition of tepsin 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 tepsin gene expression knockdown using RT-PCR Primer: tepsin (m)-PR: sc-108729-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.