SANTA CRUZ BIOTECHNOLOGY, INC.

ANP32D siRNA (h): sc-95986

BACKGROUND

ANP32D (acidic (leucine-rich) nuclear phosphoprotein 32 family, member D), also known as PP32R2 (phosphoprotein 32-related protein 2) or tumorigenic protein pp32r2, is a 131 amino acid protein that contains three leucine-rich repeats and belongs to the ANP32 family. ANP32D shares 89.3% amino acid sequence identity with ANP32A, a tumor suppressor that inhibits a variety of cancers, such as prostate and breast cancers. Although similar to ANP32A, ANP32D is tumorigenic and is preferentially expressed in prostatic cancer. Conversely, it is uncertain that ANP32D is neurally expressed. Intronless, ANP32D may be a pseudogene that is expressed in pathological situations and may also modulate the oncogenic potential of human prostate cancer. ANP32D is encoded by a gene that maps to human chromosome 12q13.11.

REFERENCES

1. Kochevar, G.J., et al. 2004. Identification of a functional mutation in pp32r1 (ANP32C). Hum. Mutat. 23: 546-551.
2. Adegbola, O., et al. 2005. Phosphorylated retinoblastoma protein complexes with pp32 and inhibits pp32-mediated apoptosis. J. Biol. Chem. 280: 15497-15502.
3. Rutherford, S., et al. 2005. Mapping of candidate tumor suppressor genes on chromosome 12 in adenoid cystic carcinoma. Lab. Invest. 85: 1076-1085.
4. Huyton, T., et al. 2007. The crystal structure of the tumor suppressor protein pp32 (ANP32A): structural insights into ANP32 family of proteins. Protein Sci. 16: 1308-1315.
5. Bernheim, A., et al. 2008. High-resolution array comparative genomic hybridization analysis of human bronchial and salivary adenoid cystic carcinoma. Lab. Invest. 88: 464-473.
6. Shen, S.M., et al. 2010. Downregulation of ANP32B, a novel substrate of caspase-3, enhances caspase-3 activation and apoptosis induction in myeloid leukemic cells. Carcinogenesis 31: 419-426.
7. Ng, A.C., et al. 2010. Human leucine-rich repeat proteins: a genome-wide bioinformatic categorization and functional analysis in innate immunity. Proc. Natl. Acad. Sci. USA 108: 4631-4638.

CHROMOSOMAL LOCATION

Genetic locus: ANP32D (human) mapping to 12q13.11.

PRODUCT

ANP32D siRNA (h) is a target-specific 19-25 nt siRNA 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 ANP32D shRNA Plasmid (h): sc-95986-SH and ANP32D shRNA (h) Lentiviral Particles: sc-95986-V as alternate gene silencing products.

PROTOCOLS

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

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

ANP32D siRNA (h) is recommended for the inhibition of ANP32D 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.