SANTA CRUZ BIOTECHNOLOGY, INC.

MBIP siRNA (h): sc-92120

BACKGROUND

MBIP (MAP3K12 binding inhibitory protein 1), also known as MAPK upstream kinase (MUK)-binding inhibitory protein, is a 344 amino acid nuclear and cytoplasmic protein that assists in the activation of the JNK pathway by inhibiting ZPK activity. Ubiquitously expressed, MBIP is found at high levels in lung and heart and is one component of the ADA2A-containing complex (ATAC) in conjunction with ADA3, GCN5, CCDC101, TADA2L, WDR5, YEATS2, DR1 and CRP2BP. MBIP exists as 3 alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MBIP (human) mapping to 14q13.3.

PRODUCT

MBIP 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 MBIP shRNA Plasmid (h): sc-92120-SH and MBIP shRNA (h) Lentiviral Particles: sc-92120-V as alternate gene silencing products.

For independent verification of MBIP (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-92120A, sc-92120B and sc-92120C.

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

MBIP siRNA (h) is recommended for the inhibition of MBIP 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 MBIP gene expression knockdown using RT-PCR Primer: MBIP (h)-PR: sc-92120-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.

PROTOCOLS

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