SANTA CRUZ BIOTECHNOLOGY, INC.

AP-1μ1 siRNA (m): sc-141132

BACKGROUND

AP-1μ1 (adaptor-related protein complex 1, μ 1 subunit), also known as CLTNM, AP47, MU-1A or CLAPM2, is a 423 amino acid peripheral membrane protein that localizes to both the Golgi apparatus, as well as to the membrane of clathrin-coated vesicles. A member of the adaptor complex medium subunit family, AP-1μ1 is a subunit of the heterotetrameric adaptor-related protein complex 1 (AP-1), which plays a role in protein sorting in endosomes and in the *trans*-Golgi network. Specifically, the AP-1 complex mediates the recruitment of clathrin to membranes and also regulates the recognition of sorting signals within transmembrane cargo molecules. Containing one MHD (μ homology) domain and multiple phosphorylated amino acid residues, AP-1μ1 is encoded by a gene mapping to human chromosome 19p13.12 and mouse chromosome 8 B3.3.

REFERENCES

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4. Roeth, J.F., et al. 2004. HIV-1 Nef disrupts MHC-I trafficking by recruiting AP-1 to the MHC-I cytoplasmic tail. J. Cell Biol. 167: 903-913.
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7. Noviello, C.M., et al. 2008. Cooperative binding of the class I major histocompatibility complex cytoplasmic domain and human immunodeficiency virus type 1 Nef to the endosomal AP-1 complex via its μ subunit. J. Virol. 82: 1249-1258.

CHROMOSOMAL LOCATION

Genetic locus: Ap1m1 (mouse) mapping to 8 B3.3.

PRODUCT

AP-1μ1 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 AP-1μ1 shRNA Plasmid (m): sc-141132-SH and AP-1μ1 shRNA (m) Lentiviral Particles: sc-141132-V as alternate gene silencing products.

For independent verification of AP-1μ1 (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-141132A, sc-141132B and sc-141132C.

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

AP-1μ1 siRNA (m) is recommended for the inhibition of AP-1μ1 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 AP-1μ1 gene expression knockdown using RT-PCR Primer: AP-1μ1 (m)-PR: sc-141132-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.