SANTA CRUZ BIOTECHNOLOGY, INC.

BLOS2 siRNA (m): sc-141712

BACKGROUND

The biogenesis of lysosome-related organelles complex 1 (BLOC-1) is a ubiquitously expressed multisubunit protein complex that is required for the normal synthesis of organelles of the endosomal-lysosomal system, such as platelet dense granules and melanosomes. Defects in the any of the subunits of BLOC-1 results in Hermansky-Pudlak syndrome, a genetic hypopigmentation and bleeding disorder. BLOS2 (biogenesis of lysosome-related organelles complex 1 subunit 2), also known as centrosome-associated protein, is a 142 amino acid protein that is one of the components of BLOC-1. Localizing to the centrosomes in a microtubule-dependent manner, BLOS2 may play a role in cell proliferation. There are two isoforms of BLOS2 that are produced as a result of alternative splicing events.

REFERENCES

1. Huizing, M., et al. 2002. Hermansky-Pudlak syndrome: vesicle formation from yeast to man. Pigment Cell Res. 15: 405-419.
2. Starcevic, M. and Dell'Angelica, E.C. 2004. Identification of snapin and three novel proteins (BLOS1, BLOS2, and BLOS3/reduced pigmentation) as subunits of biogenesis of lysosome-related organelles complex-1 (BLOC-1). J. Biol. Chem. 279: 28393-28401.
3. Felten, A., et al. 2007. Characterization of rat BLOS2/Ceap, a putative yeast She3 homolog, as interaction partner of apoptosis antagonizing transcription factor/Che-1. Biol. Chem. 388: 569-582.
4. Sun, J., et al. 2008. Ceap/BLOS2 interacts with BRD7 and selectively inhibits its transcription-suppressing effect on cellular proliferation-associated genes. Cell. Signal. 20: 1151-1158.
5. Monfregola, J., et al. 2010. Functional characterization of Wiskott Aldrich Syndrome protein and scar homolog (WASH), a bi-modular nucleation promoting factor (NPF) able to interact with biogenesis of lysosome related organelle subunit 2 (BLOS-2) and γ-Tubulin. J. Biol. Chem. 11: 579-586.
6. Kloer, D.P., et al. 2010. Assembly of the biogenesis of lysosome-related organelles complex-3 (BLOC-3) and its interaction with Rab9. J. Biol. Chem. 285: 7794-7804.

CHROMOSOMAL LOCATION

Genetic locus: Bloc1s2 (mouse) mapping to 19 C3.

PRODUCT

BLOS2 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 BLOS2 shRNA Plasmid (m): sc-141712-SH and BLOS2 shRNA (m) Lentiviral Particles: sc-141712-V as alternate gene silencing products.

For independent verification of BLOS2 (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-141712A, sc-141712B and sc-141712C.

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

BLOS2 siRNA (m) is recommended for the inhibition of BLOS2 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 BLOS2 gene expression knockdown using RT-PCR Primer: BLOS2 (m)-PR: sc-141712-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.