SANTA CRUZ BIOTECHNOLOGY, INC.

EXTL2 siRNA (m): sc-60612

BACKGROUND

EXTL2 is an α1,4-N-acetylhexosaminyltransferase that catalyzes the transfer reaction of N-acetylglucosamine and N-acetylgalactosamine from the respective UDP-sugars to the non-reducing end of (glucuronic acid) β1-3 (galactose) β1-O-naphthalenemethanol, an acceptor substrate analog of the natural common linker of various glycosylaminoglycans. Also designated exostosin-like protein 2, EXTL2 has been purified from the serum-free culture of a human sarcoma cell line and is a member of the hereditary multiple exostoses (EXT) gene family of turmor suppressors.

REFERENCES

1. Kitagawa, H., Shimakawa, H. and Sugahara, K. 1999. The tumor suppressor EXT-like gene EXTL2 encodes an α1,4-N-acetylhexosaminyltransferase that transfers N-acetylgalactosamine and N-acetylglucosamine to the common glycosaminoglycan-protein linkage region. The key enzyme for the chain initiation of heparan sulfate. J. Biol. Chem. 274: 13933-13937.
2. Pedersen, L.C., Dong, J., Taniguchi, F., Kitagawa, H., Krahn, J.M., Pedersen, L.G., Sugahara, K. and Negishi, M. 2003. Crystal structure of an α1,4-N-acetylhexosaminyltransferase (EXTL2), a member of the exostosin gene family involved in heparan sulfate biosynthesis. J. Biol. Chem. 278: 14420-14428.
3. Sobhany, M., Dong, J. and Negishi, M. 2005. Two-step mechanism that determines the donor binding specificity of human UDP-N-acetylhexosaminyltransferase. J. Biol. Chem. 280: 23441-23445.

CHROMOSOMAL LOCATION

Genetic locus: Extl2 (mouse) mapping to 3 G1.

PRODUCT

EXTL2 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 EXTL2 shRNA Plasmid (m): sc-60612-SH and EXTL2 shRNA (m) Lentiviral Particles: sc-60612-V as alternate gene silencing products.

For independent verification of EXTL2 (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-60612A, sc-60612B and sc-60612C.

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.

RESEARCH USE

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

APPLICATIONS

EXTL2 siRNA (m) is recommended for the inhibition of EXTL2 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 EXTL2 gene expression knockdown using RT-PCR Primer: EXTL2 (m)-PR: sc-60612-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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