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TLL4 siRNA (m): sc-154792

BACKGROUND

A large protein group known as the Tubulin tyrosine ligase-like family (TLL) is implied to catalyze ligations of amino acids to Tubulins and other substrates. Each member contains a characteristic TTL domain. TLL4 (Tubulin tyrosine ligase-like family, member 4) is a 1,199 amino acid protein that belongs to the TLL family and contains one TTL domain. Localizing to the cilia and basal bodies, TLL4 is a polyglutamylase that has been identified to preferentially modify nucleosome assembly protein 1 (NAP1) and 2 (NAP2). TLL4 may also play a role in the polyglutamylation of PELP1 (proline-, glutamic acid- and leucine-rich protein 1), involved in several signaling pathways, including interactions with histone H3. The gene encoding TLL4 maps to human chromosome 2q35 and mouse chromosome 1 C3.

REFERENCES

1. Janke, C., Rogowski, K., Wloga, D., Regnard, C., Kajava, A.V., Strub, J.M., Temurak, N., van Dijk, J., Boucher, D., van Dorsselaer, A., Suryavanshi, S., Gaertig, J. and Edde, B. 2005. Tubulin polyglutamylase enzymes are members of the TTL domain protein family. *Science* 308: 1758-1762.
2. van Dijk, J., Miro, J., Strub, J.M., Lacroix, B., van Dorsselaer, A., Edde, B. and Janke, C. 2008. Polyglutamylation is a post-translational modification with a broad range of substrates. *J. Biol. Chem.* 283: 3915-3922.
3. Kashiwaya, K., Nakagawa, H., Hosokawa, M., Mochizuki, Y., Ueda, K., Piao, L., Chung, S., Hamamoto, R., Eguchi, H., Ohigashi, H., Ishikawa, O., Janke, C., Shinomura, Y. and Nakamura, Y. 2010. Involvement of the Tubulin tyrosine ligase-like family member 4 polyglutamylase in PELP1 polyglutamylation and chromatin remodeling in pancreatic cancer cells. *Cancer Res.* 70: 4024-4033.
4. Suryavanshi, S., Edde, B., Fox, L.A., Guerrero, S., Hard, R., Hennessey, T., Kabi, A., Malison, D., Pennock, D., Sale, W.S., Wloga, D. and Gaertig, J. 2010. Tubulin glutamylation regulates ciliary motility by altering inner dynein arm activity. *Curr. Biol.* 20: 435-440.
5. Pathak, N., Austin, C.A. and Drummond, I.A. 2011. Tubulin tyrosine ligase-like genes *tll3* and *tll6* maintain zebrafish cilia structure and motility. *J. Biol. Chem.* 286: 11685-11695.
6. Brants, J., Semenchenko, K., Wasylyk, C., Robert, A., Carles, A., Zambrano, A., Pradeau-Aubretton, K., Birck, C., Schalken, J.A., Poch, O., de Mey, J. and Wasylyk, B. 2012. Tubulin tyrosine ligase like 12, a TLL family member with SET- and TTL-like domains and roles in histone and Tubulin modifications and mitosis. *PLoS ONE* 7: e51258.

CHROMOSOMAL LOCATION

Genetic locus: *Tll4* (mouse) mapping to 1 C3.

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.

PRODUCT

TLL4 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TLL4 shRNA Plasmid (m): sc-154792-SH and TLL4 shRNA (m) Lentiviral Particles: sc-154792-V as alternate gene silencing products.

For independent verification of TLL4 (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-154792A, sc-154792B and sc-154792C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TLL4 siRNA (m) is recommended for the inhibition of TLL4 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 μ M in 66 μ l. 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 TLL4 gene expression knockdown using RT-PCR Primer: TLL4 (m)-PR: sc-154792-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.