SANTA CRUZ BIOTECHNOLOGY, INC.

Axl siRNA (h): sc-29769

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The UFO family of receptor tyrosine kinases is comprised of subfamily members Rse (also designated Tyro3, Sky, Brt, Dtk, Etk2 and Tif), Axl (also designated UFO or ARK) and Mer (also designated Nyk or Eyk). Rse is expressed preferentially in the adult brain with lower expression in other tissues. Axl is found at highest levels in heart and skeletal muscle. Mer has been identified as a tyrosine kinase potentially involved in the development of glioblastomas. It is expressed at highest levels in ovary, prostate, lung and kidney. Gas6, a growth arrest specific gene, and the related anticoagulation factor Protein S, have been identified as ligands for the UFO family of receptors.

CHROMOSOMAL LOCATION

Genetic locus: AXL (human) mapping to 19q13.2.

PRODUCT

Axl 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 Axl shRNA Plasmid (h): sc-29769-SH and Axl shRNA (h) Lentiviral Particles: sc-29769-V as alternate gene silencing products.

For independent verification of Axl (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-29769A, sc-29769B and sc-29769C.

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

Axl siRNA (h) is recommended for the inhibition of Axl 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.

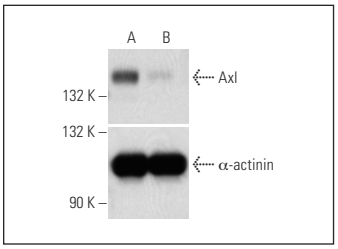
GENE EXPRESSION MONITORING

Axl (H-3): sc-166269 is recommended as a control antibody for monitoring of Axl gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Axl gene expression knockdown using RT-PCR Primer: Axl (h)-PR: sc-29769-PR (20 µl, 509 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

DATA



Axl siRNA (h): sc-29769. Western blot analysis of Axl expression in non-transfected control (**A**) and Axl siRNA transfected (**B**) HeLa cells. Blot probed with Axl (C-20): sc-1096. α-actinin (H-2): sc-17829 used as specificity and loading control.

SELECT PRODUCT CITATIONS

1. Gustafsson, A., et al. 2009. Gas6 and the receptor tyrosine kinase Axl in clear cell renal cell carcinoma. PLoS ONE 4: e7575.
2. Vuoriluoto, K., et al. 2011. Vimentin regulates EMT induction by Slug and oncogenic H-Ras and migration by governing Axl expression in breast cancer. Oncogene 30: 1436-1448.
3. Xu, J., et al. 2014. Axl gene knockdown inhibits the metastasis properties of hepatocellular carcinoma via PI3K/Akt-PAK1 signal pathway. Tumour Biol. 35: 3809-3817.
4. Fritz, H.K., et al. 2015. The Axl-regulating tumor suppressor miR-34a is increased in ccRCC but does not correlate with Axl mRNA or Axl protein levels. PLoS ONE 10: e0135991.
5. Chen, F., et al. 2018. Axl inhibitor R428 induces apoptosis of cancer cells by blocking lysosomal acidification and recycling independent of Axl inhibition. Am. J. Cancer Res. 8: 1466-1482.
6. Li, Y., et al. 2019. The role of endothelial MERTK during the inflammatory response in lungs. PLoS ONE 14: e0225051.
7. He, L., et al. 2020. Implications of the receptor tyrosine kinase Axl in gastric cancer progression. Onco Targets Ther. 13: 5901-5911.

RESEARCH USE

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