SANTA CRUZ BIOTECHNOLOGY, INC.

KIF15 siRNA (m): sc-146466

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The Power to Question

BACKGROUND

The kinesins constitute a large family of microtubule-dependent motor proteins, which are responsible for the distribution of numerous organelles, vesicles and macromolecular complexes throughout the cell. Individual kinesin members play crucial roles in cell division, intracellular transport and membrane trafficking events including endocytosis and transcytosis. KIF15 (kinesin family member 15), also known as HKLP2 (human kinesin-like protein 2) or KNSL7, is a 1,388 amino acid kinesin-related protein that shares 53% amino acid identity with the *Xenopus* protein Xklp2, a plus-end directed kinesin-like motor. Based on similarity with Xklp2 and cellular localization, KIF15 is believed to play a role in the cross-linking and immobilization of spindle microtubules. In mitotic cells, during prometaphase to early anaphase, KIF15 localizes to spindle poles and microtubules; during cytokinesis, KIF15 can be found at the Actin-based cleavage furrow. In postmitotic neurons, KIF15 exclusively localizes to microtubules.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Kif15 (mouse) mapping to 9 F4.

PRODUCT

KIF15 siRNA (m) is a target-specific 19-25 nt siRNA 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 KIF15 shRNA Plasmid (m): sc-146466-SH and KIF15 shRNA (m) Lentiviral Particles: sc-146466-V as alternate gene silencing products.

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

KIF15 siRNA (m) is recommended for the inhibition of KIF15 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 KIF15 gene expression knockdown using RT-PCR Primer: KIF15 (m)-PR: sc-146466-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.