

Annexin XI siRNA (m): sc-29695

BACKGROUND

The annexin family of calcium-binding proteins is composed of at least ten mammalian genes. It is characterized by a conserved core domain, which binds to phospholipids in a Ca^{2+} -dependent manner, and a unique amino-terminal region, which may confer binding specificity. The Annexin family has been implicated as regulators of such diverse processes as ion-flux, endocytosis and exocytosis, and cellular adhesion. Two forms of Annexin XI, designated A and B, have been identified. Transfection of COS-7 cells with Annexin XI-A, but not Annexin XI-B, causes formation of Annexin XI-associated vesicles.

REFERENCES

1. Smith, P.D., et al. 1994. Structural evolution of the Annexin supergene family. *Trends Genet.* 10: 241-246.
2. Waisman, D.M. 1995. Annexin II tetramer: structure and function. *Mol. Cell. Biochem.* 149-150: 301-322.
3. Mailliar, W.S., et al. 1996. Calcium-dependent binding of S100C to the N-terminal domain of Annexin I. *J. Biol. Chem.* 271: 719-725.
4. Chasserot-Golaz, S., et al. 1996. Annexin II in exocytosis: catecholamine secretion requires the translocation of p36 to the subplasmalemmal region in chromaffin cells. *J. Cell Biol.* 133: 1217-1236.
5. Sudo, T., et al. 1996. Isoform-specific intracellular vesicle formation by recombinant Annexin XI-A in Sf9 cells. *Biochem. Biophys. Res. Commun.* 223: 706-711.
6. Williams, L.H., et al. 2005. Annexin XI co-localises with calyculin in proliferating cells of the embryonic mouse testis. *Dev. Dyn.* 234: 432-437.

CHROMOSOMAL LOCATION

Genetic locus: Anxa11 (mouse) mapping to 14 A3.

PRODUCT

Annexin XI 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 Annexin XI shRNA Plasmid (m): sc-29695-SH and Annexin XI shRNA (m) Lentiviral Particles: sc-29695-V as alternate gene silencing products.

For independent verification of Annexin XI (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-29695A, sc-29695B and sc-29695C.

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

Annexin XI siRNA (m) is recommended for the inhibition of Annexin XI 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.

GENE EXPRESSION MONITORING

Annexin XI (D-12): sc-46686 is recommended as a control antibody for monitoring of Annexin XI 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Annexin XI gene expression knockdown using RT-PCR Primer: Annexin XI (m)-PR: sc-29695-PR (20 μl). Annealing temperature for the primers should be $55-60^{\circ}\text{C}$ and the extension temperature should be $68-72^{\circ}\text{C}$.

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.