

γ -taxilin siRNA (h): sc-61650

BACKGROUND

γ -taxilin (also called lipopolysaccharide-specific response protein 5) is ubiquitously expressed, with an especially high level of expression in heart and skeletal muscle. γ -taxilin displays known expression in brain, placenta, lung, liver, kidney and pancreas. Taxilin family members β - and γ -taxilin bind to the α subunit of the nascent polypeptide-associated complex (NAC) and affect its nuclear distribution, suggesting that the taxilin family is involved not only in the translational process through its interaction with NAC but also in the transcriptional process through its interaction with aNAC alone.

REFERENCES

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2. Nogami, S., et al. 2003. Taxilin; a novel syntaxin-binding protein that is involved in Ca^{2+} -dependent exocytosis in neuroendocrine cells. *Genes Cells* 8: 17-28.
3. Nogami, S., et al. 2004. Identification and characterization of taxilin isoforms. *Biochem. Biophys. Res. Commun.* 319: 936-943.
4. Yoshida, K., et al. 2005. Interaction of the taxilin family with the nascent polypeptide-associated complex that is involved in the transcriptional and translational processes. *Genes Cells* 10: 465-476.
5. Malyala, A., et al. 2005. Estrogen modulation of hypothalamic neurons: Activation of multiple signaling pathways and gene expression changes. *Steroids* 70:397-406.
6. Yu, V.W., et al. 2006. Inhibition of ATF4 transcriptional activity by FIAT/ γ -taxilin modulates bone mass accrual. *Ann. N.Y. Acad. Sci.* 1068: 131-142.

CHROMOSOMAL LOCATION

Genetic locus: TXLNG (human) mapping to Xp22.2.

PRODUCT

γ -taxilin 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see γ -taxilin shRNA Plasmid (h): sc-61650-SH and γ -taxilin shRNA (h) Lentiviral Particles: sc-61650-V as alternate gene silencing products.

For independent verification of γ -taxilin (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-61650A, sc-61650B and sc-61650C.

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

γ -taxilin siRNA (h) is recommended for the inhibition of γ -taxilin 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 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.

GENE EXPRESSION MONITORING

γ -taxilin (F-4): sc-393721 is recommended as a control antibody for monitoring of γ -taxilin 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 γ -taxilin gene expression knockdown using RT-PCR Primer: γ -taxilin (h)-PR: sc-61650-PR (20 μ l). Annealing temperature for the primers should be 55-60 $^{\circ}$ C and the extension temperature should be 68-72 $^{\circ}$ 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.