

YPEL5 siRNA (m): sc-155418

BACKGROUND

The family of yippee-like (YPEL) proteins include YPEL1, YPEL2, YPEL3, YPEL4 and YPEL5, all of which are widely expressed in both adult and fetal tissue and contain a characteristic 86-amino acid YPEL consensus sequence. YPEL proteins share a high degree of sequence homology with their rodent homologs, suggesting a conserved function between species. YPEL5 (yippee-like 5), also known as CGI-127, is a 121 amino acid protein that may be involved in cell division-related function. During cell cycle progression, YPEL5 localizes to multiple subcellular regions. At interphase of mitosis, YPEL5 localizes to the nucleus and centrosome, then changes its location sequentially to the spindle poles, mitotic spindle and spindle midzone, and finally it is transferred to the midbody at cytokinesis. The function of YPEL5 during cell division is not yet fully understood.

REFERENCES

1. Farlie, P., et al. 2001. YPEL 1: a novel nuclear protein that induces an epithelial-like morphology in fibroblasts. *Genes Cells* 6: 619-629.
2. Roxström-Lindquist, K., et al. 2001. The *Drosophila* gene Yippee reveals a novel family of putative zinc binding proteins highly conserved among eukaryotes. *Insect Mol. Biol.* 10: 77-86.
3. Hosono, K., et al. 2004. Identification and characterization of a novel gene family YPEL in a wide spectrum of eukaryotic species. *Gene* 340: 31-43.
4. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609724. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Ypel5 (mouse) mapping to 17 E1.3.

PRODUCT

YPEL5 siRNA (m) is a pool of 2 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 YPEL5 shRNA Plasmid (m): sc-155418-SH and YPEL5 shRNA (m) Lentiviral Particles: sc-155418-V as alternate gene silencing products.

For independent verification of YPEL5 (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-155418A and sc-155418B.

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.

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

YPEL5 siRNA (m) is recommended for the inhibition of YPEL5 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 YPEL5 gene expression knockdown using RT-PCR Primer: YPEL5 (m)-PR: sc-155418-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.