



Pyhin1 siRNA (m): sc-152607

BACKGROUND

Pyhin1 (pyrin and HIN domain-containing protein 1), also known as Ifix (interferon-inducible protein X) or Ifi209 (interferon-inducible protein p209), is a 420 amino acid nuclear protein that belongs to the HIN-200 family. Members of the HIN-200 family are thought to have a role in autoimmunity and tumor suppression, and are induced by interferons. Tumor suppressors have a repressive effect on the regulation of the cell cycle and/or are involved in the induction or inhibition of apoptosis via various mechanisms. In addition to cell cycle regulation and apoptosis promotion, some of the functions of tumor suppressors include signaling through adhesion molecules to the nucleus, transcriptional regulation, transmembrane reception, activation through phosphorylation and DNA mismatch repair. Pyhin1 contains one DAPIN domain and a HIN-200 domain, and is encoded by a gene that maps to mouse chromosome 1 H3.

REFERENCES

1. Ludlow, L.E., et al. 2005. The HIN-200 family: more than interferon-inducible genes? *Exp. Cell Res.* 308: 1-17.
2. Mondini, M., et al. 2010. The interferon-inducible HIN-200 gene family in apoptosis and inflammation: implication for autoimmunity. *Autoimmunity* 43: 226-231.
3. Sheng, K.C., et al. 2011. Inflammatory mediators hold the key to dendritic cell suppression and tumor progression. *Curr. Med. Chem.* 18: 5507-5518.
4. Skarnes, W.C., et al. 2011. A conditional knockout resource for the genome-wide study of mouse gene function. *Nature* 474: 337-342.
5. Larsson, L.G. 2011. Oncogene- and tumor suppressor gene-mediated suppression of cellular senescence. *Semin. Cancer Biol.* 21: 367-376.
6. Mah, L.Y., et al. 2011. Autophagy and cancer. *Cold Spring Harb. Perspect. Biol.* 4: a008821.

CHROMOSOMAL LOCATION

Genetic locus: Pyhin1 (mouse) mapping to 1 H3.

PRODUCT

Pyhin1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Pyhin1 shRNA Plasmid (m): sc-152607-SH and Pyhin1 shRNA (m) Lentiviral Particles: sc-152607-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 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

Pyhin1 siRNA (m) is recommended for the inhibition of Pyhin1 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 Pyhin1 gene expression knockdown using RT-PCR Primer: Pyhin1 (m)-PR: sc-152607-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.