SANTA CRUZ BIOTECHNOLOGY, INC.

Pira1 siRNA (m): sc-152271

BACKGROUND

Pira1, also known as 6M21, Ly89 or Pir, is a 680 amino acid member of the murine Ig gene superfamily. Pira1 is thought to be an Ig-like transmembrane receptor that contains six Ig-like loops. Pira1 has a short cytoplasmic tail and a charged Arg residue in the transmembrane region, suggesting that Pira1 may associate with an additional transmembrane protein to form a signal transducing complex. Pira1 is expressed in a wide range of immune system cells, including mast cells, macrophages, B cells and dendritic cells, suggesting Pira1 may play a regulatory role in inflammatory and allergic responses. The gene that encodes Pira1 maps to the leukocyte receptor complex (LRC) on murine chromosome 7.

REFERENCES

1. Kubagawa, H., et al. 1997. A novel pair of immunoglobulin-like receptors expressed by B cells and myeloid cells. Proc. Natl. Acad. Sci. USA 94: 5261-5266.
2. Kasahara, M., et al. 2002. A family of MHC class I-like genes located in the vicinity of the mouse leukocyte receptor complex. Proc. Natl. Acad. Sci. USA 99: 13687-13692.
3. Takai, T. 2005. Paired immunoglobulin-like receptors and their MHC class I recognition. Immunology. 115: 433-440.
4. Torii, I., et al. 2008. PIR-B-deficient mice are susceptible to *Salmonella* infection. J. Immunol. 181: 4229-4239.
5. Licciulli, S., et al. 2010. Pirin downregulation is a feature of AML and leads to impairment of terminal myeloid differentiation. Leukemia. 24: 429-437.

CHROMOSOMAL LOCATION

Genetic locus: Pira1 (mouse) mapping to 7 A1.

PRODUCT

Pira1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Pira1 shRNA Plasmid (m): sc-152271-SH and Pira1 shRNA (m) Lentiviral Particles: sc-152271-V as alternate gene silencing products.

For independent verification of Pira1 (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-152271A and sc-152271B.

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

Pira1 siRNA (m) is recommended for the inhibition of Pira1 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 Pira1 gene expression knockdown using RT-PCR Primer: Pira1 (m)-PR: sc-152271-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.