

PTPN13LY (H-9): sc-373748

BACKGROUND

The protein tyrosine phosphatase (PTP) family of proteins are signaling molecules that regulate processes such as cell growth, cell differentiation, oncogenic transformation and the mitotic cycle. PTPN13LY (PTPN13-like, Y-linked), also known as PRY, PTPN13LY2 or PRY2, is a 147 amino acid protein that localizes to the testis and may function in a similar manner to PTP proteins. The gene encoding PTPN13LY maps to human chromosome Y and is expressed as two alternatively spliced isoforms. Chromosome Y contains approximately 58 million base pairs and houses over 80 genes, many of which are essential for proper sexual development. The Y chromosome is the human sex determining chromosome, necessary for male development and, while deletions or defects in chromosome Y-encoded genes are not lethal, they may greatly impair masculine development and function.

REFERENCES

- Lahn, B.T., et al. 1997. Functional coherence of the human Y chromosome. *Science* 278: 675-680.
- Yen, P.H. 1998. A long-range restriction map of deletion interval 6 of the human Y chromosome: a region frequently deleted in azoospermic males. *Genomics* 54: 5-12.
- Stouffs, K., et al. 2001. Characterization of the genomic organization, localization and expression of four PRY genes (PRY1, PRY2, PRY3 and PRY4). *Mol. Hum. Reprod.* 7: 603-610.
- Skaletsky, H., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423: 825-837.

CHROMOSOMAL LOCATION

Genetic locus: PRY (human) mapping to Yq11.223.

SOURCE

PTPN13LY (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-31 near the N-terminus of PTPN13LY of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PTPN13LY (H-9) is available conjugated to agarose (sc-373748 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373748 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373748 PE), fluorescein (sc-373748 FITC), Alexa Fluor[®] 488 (sc-373748 AF488), Alexa Fluor[®] 546 (sc-373748 AF546), Alexa Fluor[®] 594 (sc-373748 AF594) or Alexa Fluor[®] 647 (sc-373748 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-373748 AF680) or Alexa Fluor[®] 790 (sc-373748 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373748 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PTPN13LY (H-9) is recommended for detection of PTPN13LY of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

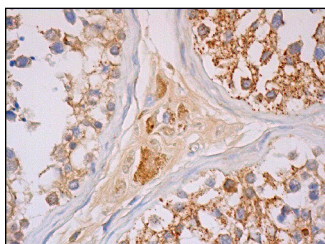
Suitable for use as control antibody for PTPN13LY siRNA (h): sc-76289, PTPN13LY shRNA Plasmid (h): sc-76289-SH and PTPN13LY shRNA (h) Lentiviral Particles: sc-76289-V.

Molecular Weight of PTPN13LY: 17 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PTPN13LY (H-9): sc-373748. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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.