# SANTA CRUZ BIOTECHNOLOGY, INC.

# MIPOL1 (M-13): sc-107746



The Power to Question

## BACKGROUND

MIPOL1 (mirror-image polydactyly gene 1 protein) is a 442 amino acid protein that is expressed very weakly in skeletal muscle, heart, pancreas, kidney, liver and fetal kidney. Defects in the gene encoding MIPOL1 cause mirror-image polydactyly of hands and feet, a congenital anomaly that is characterized by mirror image duplication of digits. The MIPOL gene has also been implicated in a translocation event in which it rearranges with the PITX2 gene, resulting in a phenotype of mild craniofacial and acallosal central nervous system midline defects. Down-regulation of MIPOL1 expression is observed in a high percentage of nasopharyngeal carcinomas, suggesting that MIPOL1 is a tumor suppressor. There are three isoforms of MIPOL1 that are expressed as a result of alternative splicing events.

## REFERENCES

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- Kamnasaran, D., O'Brien, P.C., Zackai, E.H., Muenke, M., Ferguson-Smith, M.A. and Cox, D.W. 2003. Rearrangement in the PITX2 and MIPOL1 genes in a patient with a t(4;14) chromosome. Eur. J. Hum. Genet. 11: 315-324.
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- Cheung, A.K., Lung, H.L., Ko, J.M., Cheng, Y., Stanbridge, E.J., Zabarovsky, E.R., Nicholls, J.M., Chua, D., Tsao, S.W., Guan, X.Y. and Lung, M.L. 2009. Chromosome 14 transfer and functional studies identify a candidate tumor suppressor gene, mirror image polydactyly 1, in nasopharyngeal carcinoma. Proc. Natl. Acad. Sci. USA 106: 14478-14483.

#### CHROMOSOMAL LOCATION

Genetic locus: Mipol1 (mouse) mapping to 12 C1.

#### SOURCE

MIPOL1 (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MIPOL1 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107746 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

MIPOL1 (M-13) is recommended for detection of MIPOL1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (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 MIPOL1 siRNA (m): sc-149439, MIPOL1 shRNA Plasmid (m): sc-149439-SH and MIPOL1 shRNA (m) Lentiviral Particles: sc-149439-V.

Molecular Weight of MIPOL1: 52 kDa.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# STORAGE

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.