

Mesothelin (B-3): sc-166203

BACKGROUND

Mesothelin is a glycosylphosphatidylinositol-linked cell-surface molecule expressed in the mesothelial lining of the body cavities and in many tumor cells. Mesothelin is a tumor antigen on the surface of human ovarian cancers and mesotheliomas. Mesothelin immunoreactivity is high in cancers of the ovary (serous papillary, endometrioid and undifferentiated) and pancreas, with less frequent staining seen in adenocarcinomas of the endometrium, lung and stomach/esophagus. In adult mouse tissues the Mesothelin transcript is present in lung, heart, spleen, liver, kidney and testis.

REFERENCES

1. Chang, K. and Pastan, I. 1996. Molecular cloning of Mesothelin, a differentiation antigen present on mesothelium, mesotheliomas, and ovarian cancers. *Proc. Natl. Acad. Sci. USA* 93: 136-140.
2. Chowdhury, P.S., et al. 1997. Isolation of anti-Mesothelin antibodies from a phage display library. *Mol. Immunol.* 34: 9-20.
3. Hassan, R., et al. 1999. ¹¹¹Indium-labeled monoclonal antibody K1: biodistribution study in nude mice bearing a human carcinoma xenograft expressing Mesothelin. *Int. J. Cancer* 80: 559-563.
4. Bera, T.K. and Pastan, I. 2000. Mesothelin is not required for normal mouse development or reproduction. *Mol. Cell. Biol.* 20: 2902-2906.

CHROMOSOMAL LOCATION

Genetic locus: Msln (mouse) mapping to 17 A3.3.

SOURCE

Mesothelin (B-3) is a mouse monoclonal antibody raised against amino acids 291-575 mapping near the C-terminus of Mesothelin of mouse 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.

APPLICATIONS

Mesothelin (B-3) is recommended for detection of Mesothelin of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mesothelin siRNA (m): sc-45387, Mesothelin shRNA Plasmid (m): sc-45387-SH and Mesothelin shRNA (m) Lentiviral Particles: sc-45387-V.

Molecular Weight of Mesothelin precursor: 69 kDa.

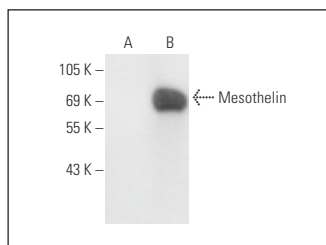
Molecular Weight of mature Mesothelin: 40 kDa.

Positive Controls: Mesothelin (m): 293T Lysate: sc-121605 or P 23 whole cell lysate.

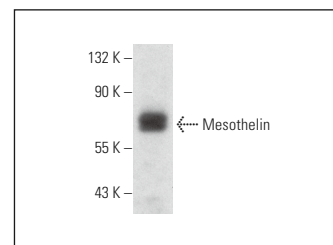
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Mesothelin (B-3): sc-166203. Western blot analysis of Mesothelin expression in non-transfected: sc-117752 (A) and mouse Mesothelin transfected: sc-121605 (B) 293T whole cell lysates.



Mesothelin (B-3): sc-166203. Western blot analysis of Mesothelin expression in P 23 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Blum, W., et al. 2015. Overexpression or absence of calretinin in mouse primary mesothelial cells inversely affects proliferation and cell migration. *Respir. Res.* 16: 153.
2. Blum, W., et al. 2015. Establishment of immortalized murine mesothelial cells and a novel mesothelioma cell line. *In Vitro Cell. Dev. Biol. Anim.* 51: 714-721.

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.



See **Mesothelin (K1): sc-33672** for Mesothelin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.