

# Mesothelin (C-3): sc-166124

## 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

- 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.
- Chowdhury, P.S., et al. 1997. Isolation of anti-Mesothelin antibodies from a phage display library. *Mol. Immunol.* 34: 9-20.
- Hassan, R., et al. 1999. <sup>111</sup>Indium-labeled monoclonal antibody K1: biodistribution study in nude mice bearing a human carcinoma xenograft expressing Mesothelin. *Int. J. Cancer* 80: 559-563.
- Bera, T.K., et al. 2000. Mesothelin is not required for normal mouse development or reproduction. *Mol. Cell. Biol.* 20: 2902-2906.
- Frierson, H.F., Jr., et al. 2003. Large-scale molecular and tissue microarray analysis of Mesothelin expression in common human carcinomas. *Hum. Pathol.* 34: 605-609.

## CHROMOSOMAL LOCATION

Genetic locus: MSLN (human) mapping to 16p13.3; Msln (mouse) mapping to 17 A3.3.

## SOURCE

Mesothelin (C-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 IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Mesothelin (C-3) is available conjugated to agarose (sc-166124 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166124 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166124 PE), fluorescein (sc-166124 FITC), Alexa Fluor® 488 (sc-166124 AF488), Alexa Fluor® 546 (sc-166124 AF546), Alexa Fluor® 594 (sc-166124 AF594) or Alexa Fluor® 647 (sc-166124 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166124 AF680) or Alexa Fluor® 790 (sc-166124 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## STORAGE

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

## APPLICATIONS

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

Suitable for use as control antibody for Mesothelin siRNA (h): sc-45386, Mesothelin siRNA (m): sc-45387, Mesothelin shRNA Plasmid (h): sc-45386-SH, Mesothelin shRNA Plasmid (m): sc-45387-SH, Mesothelin shRNA (h) Lentiviral Particles: sc-45386-V and Mesothelin shRNA (m) Lentiviral Particles: sc-45387-V.

Molecular Weight of Mesothelin precursor: 69 kDa.

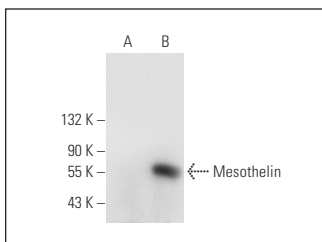
Molecular Weight of mature Mesothelin: 40 kDa.

Positive Controls: Mesothelin (m): 293T Lysate: sc-121605, A549 cell lysate: sc-2413 or mouse testis extract: sc-2405.

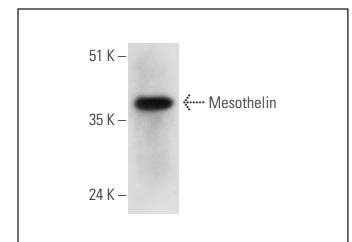
## RECOMMENDED SUPPORT REAGENTS

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 (C-3): sc-166124. Western blot analysis of Mesothelin expression in non-transfected: sc-117752 (A) and mouse Mesothelin transfected: sc-121605 (B) 293T whole cell lysates.



Mesothelin (C-3): sc-166124. Western blot analysis of Mesothelin expression in mouse testis tissue extract.

## SELECT PRODUCT CITATIONS

- Kim, S.M., et al. 2016. Primary diffuse malignant peritoneal mesothelioma in a striped skunk (*Mephitis mephitis*). *J. Vet. Med. Sci.* 78: 485-487.

## RESEARCH USE

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