

### Certificate of Analysis

**Product:** Mouse Monoclonal Anti-Mesothelin (clone MB) - Protein A purified TRIAL SIZE

**Code:** 200-301-A87S

**Lot #:** 20513

**Size:** 25  $\mu$ l

**Physical State:** Liquid (sterile filtered)

**Antibody Concentration:** 1.0 mg/ml (by UV absorbance at 280 nm)

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Stabilizer:** None

**Preservative:** 0.01% (w/v) Sodium Azide

**Clone:** MB-G10

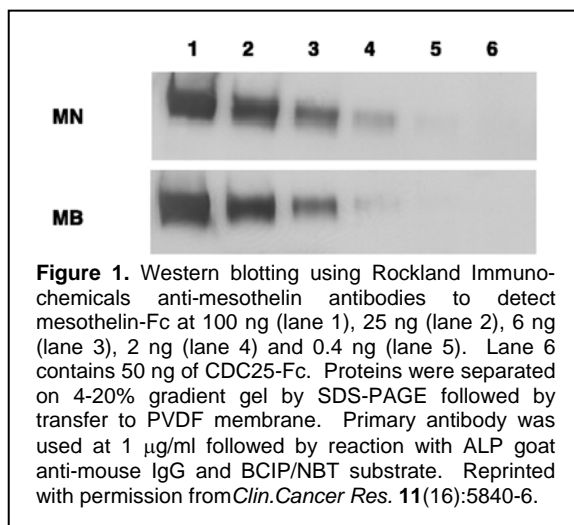
**Fusion Partner:** Sp2/0 - Ag14

**Storage Conditions for Trial Size:** Store vial at  $-20^{\circ}$  C or below prior to opening. This vial contains a relatively low volume of reagent (25  $\mu$ l). To minimize loss of volume dilute 1:10 by adding 225  $\mu$ l of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at  $-20^{\circ}$ C or below after dilution. Avoid cycles of freezing and thawing. Expiration date is three (3) months from date of opening.

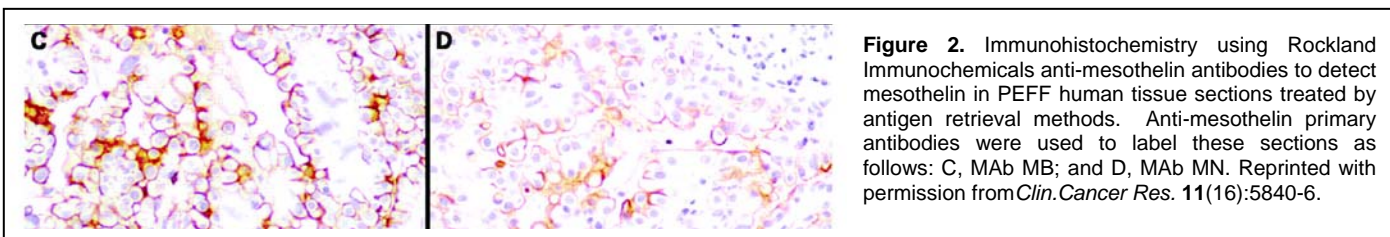
**Background Information:** Mesothelin is a glycosyl-phosphatidyl- inositol-anchored glycoprotein present on the cell surface of various human solid tumors. The mesothelin (MSLN) gene encodes a 71-kDa precursor protein that is processed to a 40-kDa glycosylphosphatidyl-inositol-anchored protein that composes the mature portion and an NH<sub>2</sub>-terminal 31-kDa fragment called megakaryocyte-potentiating factor that is released from the cell. Mesothelin is a tumor differentiation antigen present at low levels on a restricted set of normal adult tissues, such as mesothelium, but aberrantly over expressed in mesotheliomas, ovarian, and pancreatic cancers. The biological functions of mesothelin remain elusive. A recent study showed that mesothelin binds to MUC16/CA125, and that this interaction mediates cell adhesion, suggesting that there may be an important role for MUC16/CA125 and mesothelin in the metastatic spread of ovarian cancer.

#### Recommended Dilutions:

<b>WESTERN BLOT</b>	1:1,000
<b>IMMUNOHISTOCHEMISTRY</b>	1:100
<b>IMMUNO PRECIPITATION</b>	User Optimized
<b>OTHER APPLICATIONS</b>	User Optimized



**Application Note(s):** This antibody has been tested for use in immunohistochemistry and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 40 kDa in size corresponding to mature mesothelin by western blotting in the appropriate cell lysate or extract. For immunohistochemistry, archival PEFF human tissues were deparaffinized followed by hydration. Antigen-retrieval is recommended. Block tissues with 1% BSA in PBS for 30 min at 23 $^{\circ}$  C. Antibodies are diluted in 1% BSA and reacted with tissue for 60 min at room temperature.



**Relevant Link(s):** NCBI Link (preprotein) [NP\\_005814](#) UniProtKB/Swiss-Prot [Q13421](#)

**Purity and Specificity:** This antibody is directed against human mesothelin protein. This product was purified from tissue culture supernatant fluid by Protein A chromatography. Cross reactivity with homologues from other sources has not been tested.

**Immunogen:** This antibody was produced in mice by repeated immunizations with a recombinant protein corresponding to the extracellular domain of human mesothelin.

#### Specific References:

Onda, M., Willingham, M., Nagata, S., Bera, T.K., Beers, R., Ho, M., Hassan, R., Kreitman, R.J., Pastan, I. (2005) New monoclonal antibodies to mesothelin useful for immunohistochemistry, fluorescence-activated cell sorting, Western blotting, and ELISA. *Clin Cancer Res* **11**(16):5840-6.

Ho, M., Bera, T.K., Willingham, M., Onda, M., Hassan, R., Fitzgerald, D. and Pastan, I. (2007) Mesothelin Expression in Human Lung Cancer. *Clin Cancer Res* **13**:1571-5.

#### General References:

Chang K, Pastan I, Willingham MC. (1992) Isolation and characterization of a monoclonal antibody reactive with ovarian cancers and normal mesothelium. *Int J Cancer* **50**:373-81.

Argani P, Iacobuzio-Danahue C, Ryu B, et al. (2001) Mesothelin is overexpressed in the vast majority of ductal adenocarcinomas of the pancreas: identification of a new pancreatic cancer marker by serial analysis of gene expression (SAGE). *Clin Cancer Res* **7**:3862-8.

Chang K, Pastan I. (1996) Molecular cloning of mesothelin, a differentiation antigen present on mesothelium, mesothelioma, and ovarian cancers. *Proc Natl Acad Sci U S A* **93**:136-40.

Bera TK, Pastan I. (2000) Mesothelin is not required for normal mouse development on reproduction. *Mol Cell Biol* **20**:2902-6.

Rump A, Morikawa Y, Tanaka M, et al. (2004) Binding of ovarian cancer antigen CA125/MUC16 to mesothelin mediates cell adhesion. *J Biol Chem* **279**:9190-8.

#### Related Products:

<a href="#">#200-301-A87</a>	Mouse Monoclonal Anti-Mesothelin (clone MB)
<a href="#">#200-301-A88</a>	Mouse Monoclonal Anti-Mesothelin (clone MN)
<a href="#">#610-703-124</a>	Peroxidase Conjugated Affinity Purified Anti-MOUSE IgG (H&L) (DONKEY) MX10
<a href="#">#610-132-121</a>	IRDye® 800 Conjugated Affinity Purified Anti-MOUSE IgG (H&L) (GOAT) MX10
<a href="#">#610-144-121</a>	DyLight™680 Conjugated Affinity Purified Anti-MOUSE IgG (H&L) (GOAT) MX10
<a href="#">#610-1502</a>	Alkaline Phosphatase (ALP) Conjugated Affinity Purified Anti-MOUSE IgG (H&L) (GOAT)
<a href="#">#BCBT-100</a>	BCIP/TNBT MEMBRANE ALKALINE PHOSPHATASE SUBSTRATE
<a href="#">#B501-0500</a>	BLOTTO (500 g)
<a href="#">#BSA-30</a>	30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer) (500 ml)
<a href="#">#B304</a>	NORMAL GOAT SERUM (NGS) (10 ml)
<a href="#">#KIA-002</a>	<b>MaxTag™</b> Anti-MOUSE IgG Kit for Immunoblotting
<a href="#">#MB-070</a>	Blocking Buffer for Fluorescent Western Blotting

**Note:** This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 326, Gilbertsville, Pennsylvania, USA.