Datasheet for ABIN233752

anti-Mesothelin antibody (Extracellular, Extracellular Domain)

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Overview

Quantity:	100 µg
Target:	Mesothelin (MSLN)
Binding Specificity:	Extracellular, Extracellular Domain
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Mesothelin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	This antibody was produced in mice by repeated immunizations with a recombinant protein corresponding to the extracellular domain of human mesothelin. Immunogen Type: RecombinantProtein
Clone:	MB-G10
Isotype:	IgG2a
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.
Characteristics:	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

Product Details

	that composes the mature portion and an NH_2-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.
Sterility:	Sterile filtered

Target Details

Target:	Mesothelin (MSLN)
Alternative Name:	Mesothelin (MSLN Products)
Background:	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_2-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. Synonyms: Mesothelian, MN, MB, Pre-pro-megakaryocyte-potentiating factor, CAK1 antigen
Gene ID:	10232, 53988378
UniProt:	Q13421
Pathways:	EGFR Signaling Pathway, Positive Regulation of Peptide Hormone Secretion, Intracellular Steroid Hormone Receptor Signaling Pathway, Steroid Hormone Mediated Signaling Pathway, Carbohydrate Homeostasis, cAMP Metabolic Process, Regulation of G-Protein Coupled Receptor Protein Signaling, Positive Regulation of Endopeptidase Activity, Regulation of Carbohydrate Metabolic Process

Application Details

Application Notes:	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° C. Antibodies are diluted in 1% BSA and reacted with tissue for 60 min at room temperature.
Comment:	Gene Name: MSLN
Restrictions:	For Research Use only

Handling

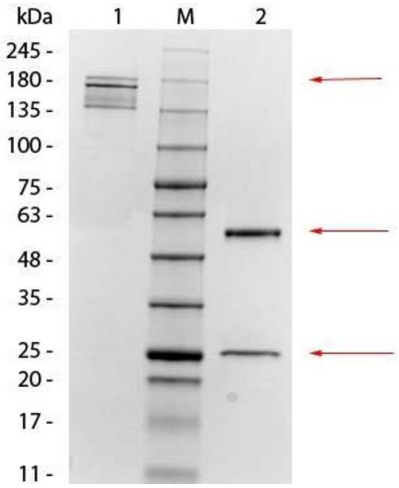
Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is three (3) months from date of opening.
Expiry Date:	3 months

Publications

Product cited in:	Ho, Bera, Willingham, Onda, Hassan, FitzGerald, Pastan: "Mesothelin expression in human lung cancer." in: **Clinical cancer research : an official journal of the American Association for Cancer Research**, Vol. 13, Issue 5, pp. 1571-5, (2007) (PubMed). Onda, Willingham, Nagata, Bera, Beers, Ho, Hassan, Kreitman, Pastan: "New monoclonal antibodies to mesothelin useful for immunohistochemistry, fluorescence-activated cell sorting,

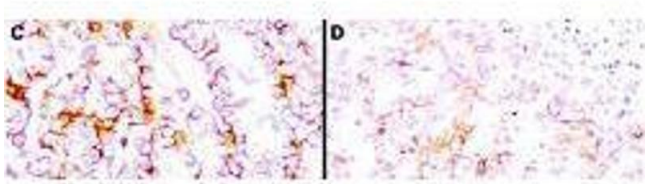
Western blotting, and ELISA." in: **Clinical cancer research : an official journal of the American Association for Cancer Research**, Vol. 11, Issue 16, pp. 5840-6, (2005) (PubMed).

Images



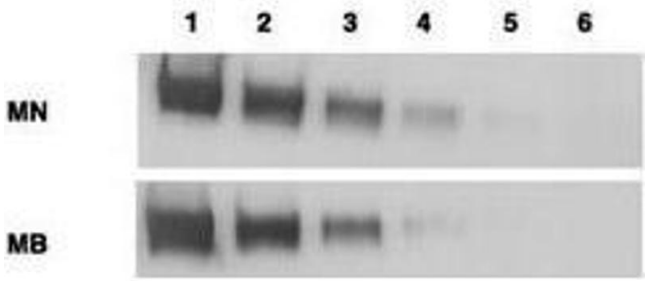
SDS-PAGE

Image 1. SDS-PAGE of Mouse anti-Mesothelin Monoclonal Antibody. Lane 1: Non-Reduced Mouse anti-Mesothelin Monoclonal Antibody. Lane 2: 3 µL OPAL Pre-stained Marker . Lane 3: Reduced Mouse anti-Mesothelin Monoclonal Antibody. Load: 1 µg per lane. Predicted/Observed size: Non-reduced at 160 kDa; Reduced at 55, 25 kDa.



Immunohistochemistry

Image 2. Immunohistochemistry using anti-mesothelin antibodies to detect mesothelin in PEFF human tissue sections treated by antigen retrieval methods. Anti-mesothelin primary antibodies were used to label these sections as follows: C, MAb MB; and D, MAb MN. Reprinted with permission fromClin.Cancer Res. 11(16):5840-6.



Western Blotting

Image 3. Western blotting using anti-mesothelin antibodies to detect mesothelin-Fc at 100 ng (lane 1), 25 ng (lane 2), 6 ng (lane 3), 2 ng (lane 4) and 0.4 ng (lane 5). Lane 6 contains 50 ng of CDC25-Fc. Proteins were separated on 4-20% gradient gel by SDS-PAGE followed by transfer to PVDF membrane. Primary antibody was used at 1µg/ml followed by reaction with ALP goat anti-mouse IgG and BCIP/NBT substrate. Reprinted with permission fromClin.Cancer Res. 11(16):5840-6.