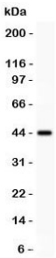
Mesothelin Antibody Rabbit Polyclonal / MSLN (R31700)

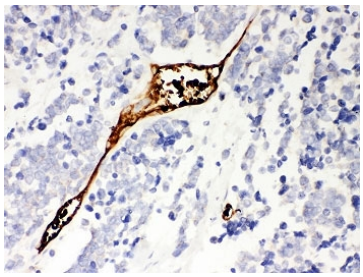
Catalog No.	Formulation	Size
R31700	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

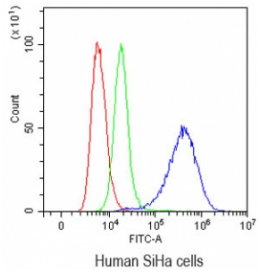
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
Gene ID	10232
Localization	Cytoplasmic, cell surface, secreted
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml FACS: 1-3ug/10^6 cells ELISA: 0.1-0.5ug/ml (human protein tested); request BSA free format for coating
Limitations	This Mesothelin antibody is available for research use only.



Western blot testing of Mesothelin antibody and recombinant human protein (0.5ng)



IHC of Mesothelin antibody in human lung cancer tissue. The rabbit polyclonal antibody demonstrates focal HRP-DAB brown staining localized to tumor-associated epithelial cells, with predominantly membranous and cytoplasmic signal consistent with Mesothelin expression in carcinoma cells. Surrounding stromal and inflammatory cells show minimal background staining. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer prior to antibody incubation.



Flow cytometry testing of human SiHa cells with Mesothelin antibody at 1ug/10^6 cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue=Mesothelin antibody.

Description

Mesothelin antibody recognizes Mesothelin, a glycosylphosphatidylinositol-anchored cell surface glycoprotein encoded by the MSLN gene on chromosome 16p13.3. Mesothelin Antibody Rabbit Polyclonal is designed to detect this tumor-associated antigen that is highly expressed in multiple epithelial malignancies. Mesothelin is synthesized as a precursor protein that undergoes proteolytic cleavage by furin-like convertases to generate a membrane-bound mature form and a secreted fragment known as megakaryocyte potentiating factor. In normal tissues, Mesothelin expression is largely restricted to mesothelial cells lining the pleura, peritoneum, and pericardium, where it localizes primarily to the plasma membrane.

Mesothelin antibody, also referred to in the literature as CAK1 antibody and megakaryocyte potentiating factor precursor antibody, targets a differentiation antigen that is markedly overexpressed in malignant mesothelioma, pancreatic ductal adenocarcinoma, ovarian serous carcinoma, and subsets of lung and gastric carcinomas. In tumor cells, Mesothelin typically demonstrates strong membranous staining with variable cytoplasmic signal reflecting biosynthesis and intracellular trafficking through the endoplasmic reticulum and Golgi apparatus before surface anchoring. Its restricted expression in most normal tissues combined with significant upregulation in cancer has established Mesothelin as a clinically relevant tumor biomarker.

Functionally, Mesothelin contributes to tumor cell adhesion and metastatic dissemination. A well-characterized interaction occurs between Mesothelin and MUC16, also known as CA125, facilitating heterotypic cell adhesion that may promote peritoneal implantation and spread of ovarian carcinoma cells. Mesothelin expression has also been associated with enhanced cellular proliferation, resistance to apoptosis, and activation of signaling pathways that support tumor progression. Although its exact physiologic role in normal mesothelial biology remains incompletely defined, its involvement in oncogenic processes is well documented in translational research.

The MSLN gene product is post-translationally processed and may generate soluble Mesothelin-related peptides detectable in patient serum. These circulating forms have been investigated in research settings as potential biomarkers for disease monitoring, particularly in mesothelioma and pancreatic cancer. Due to its cell surface accessibility and tumor-restricted distribution, Mesothelin remains a prominent target for antibody-based therapeutic development and biomarker studies.

This rabbit polyclonal antibody targets Mesothelin for research applications focused on tumor biology, biomarker analysis, and target validation. By enabling detection of Mesothelin expression in experimental systems, this Mesothelin antibody supports oncology research efforts at NSJ Bioreagents.

This Mesothelin antibody is part of a broader Mesothelin antibody panel offered by NSJ Bioreagents.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Mesothelin antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 306-576) was used as the immunogen for this Mesothelin antibody.

Storage

After reconstitution, the Mesothelin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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