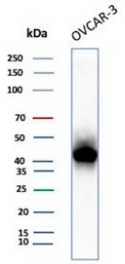
MSLN Antibody Recombinant Mouse MAb / Mesothelin [clone rMSLN/8764] (V4429)

Catalog No.	Formulation	Size
V4429-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4429-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4429SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

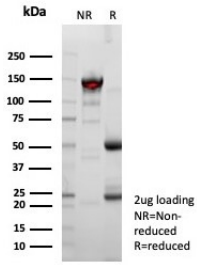
Recombinant | MOUSE MONOCLONAL

Bulk quote request

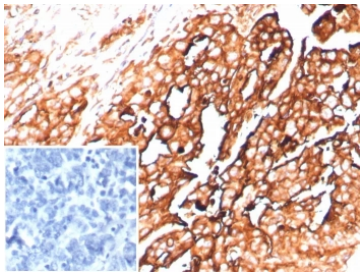
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rMSLN/8764
Purity	Protein A/G affinity
UniProt	Q13421
Localization	Cell Surface, Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT Western Blot : 2-4ug/ml
Limitations	This recombinant MSLN antibody is available for research use only.



Western blot analysis of MSLN antibody in human OVCAR-3 cell lysate. The recombinant mouse mAb clone rMSLN/8764 detects a prominent band at approximately 40 kDa, consistent with the processed mature Mesothelin form generated by proteolytic cleavage of the precursor protein. The predicted molecular weight of the full-length Mesothelin precursor is approximately 70 kDa, while the membrane-associated processed form is approximately 40 kDa. The observed band pattern in OVCAR-3 cells aligns with expected processing of Mesothelin in ovarian carcinoma-derived cell lines.



SDS-PAGE analysis of purified, BSA-free recombinant MSLN antibody (clone rMSLN/8764) as confirmation of integrity and purity.



Immunohistochemistry of MSLN antibody in human ovarian cancer tissue. The recombinant mouse mAb clone rMSLN/8764 demonstrates strong membranous and cytoplasmic HRP-DAB brown staining in tumor epithelial cells, consistent with Mesothelin overexpression in ovarian carcinoma. Staining is predominantly localized along the cell membrane with additional cytoplasmic signal reflecting biosynthesis and processing. The negative control inset, using PBS in place of primary antibody, shows no specific staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to incubation.

Description

MSLN antibody recognizes Mesothelin, a glycosylphosphatidylinositol-anchored cell surface glycoprotein encoded by the MSLN gene located on chromosome 16p13.3. MSLN Antibody Recombinant Mouse MAb is designed to detect this well-characterized tumor-associated antigen in oncology research models. Mesothelin is synthesized as a precursor protein that undergoes proteolytic cleavage to generate a membrane-bound mature form and a secreted fragment known as megakaryocyte potentiating factor. In normal physiology, 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 multiple malignancies. High expression is observed in malignant mesothelioma, pancreatic ductal adenocarcinoma, ovarian serous carcinoma, and subsets of lung and gastric carcinomas. In tumor tissues, Mesothelin typically demonstrates strong membranous staining with variable cytoplasmic signal reflecting synthesis and trafficking through the endoplasmic reticulum and Golgi apparatus before surface anchoring.

Functionally, Mesothelin contributes to tumor cell adhesion and metastatic dissemination. A well-characterized interaction occurs with 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 proliferative capacity, resistance to apoptosis, and activation of signaling pathways that support tumor progression. Although its precise physiologic role in normal mesothelial biology remains incompletely defined, its involvement in tumor aggressiveness is well established in translational oncology research.

The MSLN gene encodes a precursor protein that is processed by furin-like proteases to yield the mature membrane-bound form. Soluble Mesothelin-related peptides can be detected in patient serum and have been investigated as research biomarkers for disease monitoring, particularly in mesothelioma and pancreatic cancer. The restricted distribution of Mesothelin in essential normal tissues combined with its high surface density in tumors has made it an attractive therapeutic target.

This recombinant mouse monoclonal antibody clone rMSLN/8764 targets Mesothelin for research applications focused on tumor biology, biomarker evaluation, and target validation. By enabling reliable detection of Mesothelin expression in experimental systems, this Mesothelin antibody supports oncology research efforts at NSJ Bioreagents.

Application Notes

Optimal dilution of the recombinant MSLN antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 273-407) from the human protein was used as the immunogen for the recombinant MSLN antibody.

Storage

Aliquot the recombinant MSLN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.