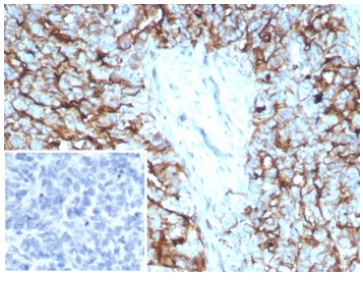
Mesothelin Antibody Recombinant Rabbit MAb / MSLN [clone MSLN/8391R] (V4427)

Catalog No.	Formulation	Size
V4427-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4427-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4427SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

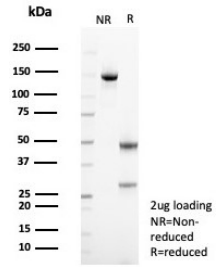
Recombinant RABBIT MONOCLONAL

Bulk quote request

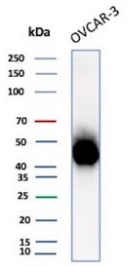
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSLN/8391R
Purity	Protein A/G affinity
UniProt	Q13421
Localization	Cell surface, Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This Mesothelin antibody is available for research use only.



Immunohistochemistry of Mesothelin antibody in human ovarian cancer tissue. The recombinant rabbit mAb clone MSLN/8391R demonstrates strong membranous HRP-DAB brown staining in tumor epithelial cells, with additional cytoplasmic signal consistent with Mesothelin synthesis and surface localization in ovarian carcinoma. Staining highlights cohesive clusters of malignant epithelial cells, while surrounding stromal elements show minimal reactivity. The negative control inset, using PBS in place of the 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.



SDS-PAGE analysis of purified, BSA-free Mesothelin antibody (clone MSLN/8391R) as confirmation of integrity and purity.



Western blot testing of human OVCAR-3 cell lysate with recombinant Mesothelin antibody. Predicted molecular weight ~70 kDa (precursor), ~40 kDa (processed form).

Description

Mesothelin antibody recognizes Mesothelin, a glycosylphosphatidylinositol-anchored cell surface glycoprotein encoded by the MSLN gene on chromosome 16p13.3. Mesothelin Antibody Recombinant Rabbit MAb is developed to detect this tumor-associated antigen that is highly expressed in multiple epithelial malignancies. Mesothelin is synthesized as a precursor protein that undergoes furin-mediated proteolytic cleavage 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 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 corresponding to synthesis and intracellular trafficking through the secretory pathway before surface anchoring. Its limited distribution in most normal tissues and elevated expression in cancer have established Mesothelin as a widely studied 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 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 role in oncogenic processes is well recognized.

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 expression pattern, Mesothelin has also become a focus of antibody-based therapeutic development.

This recombinant rabbit monoclonal antibody clone MSLN/8391R targets Mesothelin for research applications focused on tumor biology, biomarker evaluation, and therapeutic target assessment. By enabling consistent detection of Mesothelin expression in experimental systems, this Mesothelin antibody supports oncology research efforts at NSJ Bioreagents.

Application Notes

Optimal dilution of the Mesothelin 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 Mesothelin antibody.

Storage

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