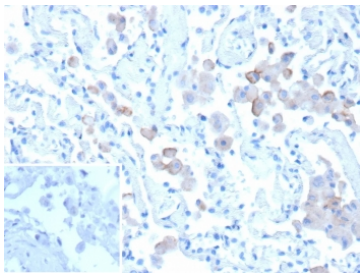
Mannose Receptor Antibody / MRC1 / CD206 [clone MRC1/9457] (V5767)

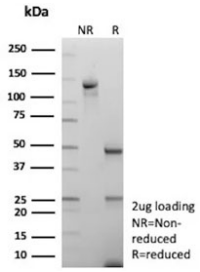
Catalog No.	Formulation	Size
V5767-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5767-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5767SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	MRC1/9457
Purity	Protein G affinity
UniProt	P22897
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Mannose Receptor antibody is available for research use only.



Mannose Receptor Antibody Human Lung IHC. Immunohistochemical staining of FFPE human lung tissue using Mannose Receptor antibody (clone MRC1/9457) demonstrates distinct cytoplasmic and membranous HRP-DAB brown staining within scattered immune cell populations distributed throughout the pulmonary tissue. The staining pattern is consistent with expression of the Mannose Receptor (MRC1/CD206), a C-type lectin receptor involved in carbohydrate recognition, receptor-mediated endocytosis, antigen processing, and macrophage-mediated immune regulation. Positive immunoreactivity is observed in cells morphologically consistent with alveolar macrophages and other antigen-presenting cell populations that contribute to pulmonary immune surveillance and maintenance of respiratory tissue homeostasis. Inset: PBS was used in place of the primary antibody as a negative control. HIER: boil tissue sections in pH 9, 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Mannose Receptor antibody (clone MRC1/9457) as confirmation of integrity and purity.

Description

Mannose Receptor Antibody recognizes the Mannose Receptor, also known as MRC1 (Macrophage Mannose Receptor 1 or CD206), a type I transmembrane glycoprotein belonging to the C-type lectin receptor family. The Mannose Receptor functions as a pattern-recognition and endocytic receptor that binds carbohydrate structures containing mannose, fucose, and N-acetylglucosamine residues commonly found on microorganisms, glycoproteins, and endogenous ligands. Through these interactions, the receptor mediates ligand internalization, antigen uptake, cellular scavenging, and immune surveillance, making it an important component of innate immune defense mechanisms.

Mannose Receptor Antibody is widely used for studying macrophage biology, antigen presentation, and receptor-mediated endocytosis. The receptor is predominantly expressed by macrophages, dendritic cells, and other specialized antigen-presenting cell populations where it facilitates the recognition and clearance of extracellular material. Following ligand binding, the Mannose Receptor directs cargo into intracellular trafficking pathways that contribute to antigen processing and communication between innate and adaptive immune systems. These functions have established MRC1 as a key marker for investigations involving immune regulation and host defense responses.

Mannose Receptor Antibody is also valuable for examining tissue remodeling, wound healing, and inflammatory processes. Expression of the Mannose Receptor is frequently associated with macrophage populations involved in tissue repair, extracellular matrix turnover, and maintenance of tissue homeostasis. The receptor contributes to the clearance of glycosylated proteins and cellular debris while helping regulate interactions between immune cells and their surrounding microenvironment. As a result, MRC1 has become an important target for studies focused on inflammation, fibrosis, and tissue regeneration.

Mannose Receptor Antibody has gained significant importance in cancer and tumor microenvironment research. CD206-positive macrophages are commonly observed within solid tumors where they may contribute to immune suppression, angiogenesis, extracellular matrix remodeling, and tumor progression. Consequently, the Mannose Receptor is widely used as a marker for tumor-associated macrophages and is frequently evaluated in studies investigating cancer immunology, therapeutic responses, and tumor-stromal interactions. Its role at the intersection of immune regulation and tissue remodeling has made MRC1 a valuable biomarker across multiple fields of biomedical research.

Mannose Receptor Antibody supports research involving innate immunity, carbohydrate recognition, antigen uptake, receptor trafficking, macrophage characterization, and translational medicine. Because the receptor occupies a central role in glycan recognition and immune surveillance pathways, it remains an important target for studies aimed at understanding both normal physiological processes and disease-associated immune mechanisms.

Researchers studying macrophage biology, antigen uptake, and innate immune regulation may also be interested in our CD206 Antibody / Macrophage Mannose Receptor Antibody.

Application Notes

Optimal dilution of the Mannose Receptor antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1100-1400 from human Macrophage mannose receptor 1 protein was used as the immunogen for the Mannose Receptor antibody.

Storage

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

Alternate Names

CD206 Antibody, MRC1 Antibody, Macrophage Mannose Receptor Antibody, Mannose Receptor Antibody, Macrophage Mannose Receptor 1 Antibody, C-Type Lectin Domain Family 13 Member D Antibody, CLEC13D Antibody, Endocytic Mannose Receptor Antibody

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