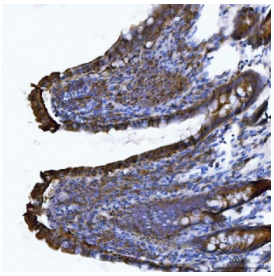
Mouse Rat CD103 Antibody / Rodent Itgae Antibody (RQ7083)

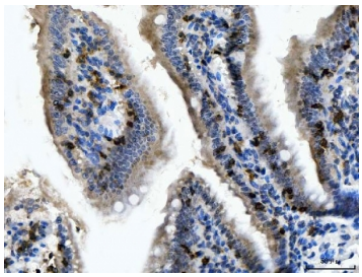
Catalog No.	Formulation	Size
RQ7083	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q60677
Localization	Cell membrane, cytoplasm
Applications	Immunohistochemistry (FFPE): 2-5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This Mouse Rat CD103 Antibody / Rodent Itgae Antibody is available for research use only.



Mouse Rat CD103 Antibody Staining in Rat Colon by IHC. Immunohistochemistry of FFPE rat colon tissue using Mouse Rat CD103 Antibody shows distinct brown staining in cells distributed throughout the colonic mucosa. Positive cells are particularly evident within the lamina propria and around the glandular structures, with additional staining visible along portions of the mucosal architecture. The heterogeneous cellular pattern contrasts with the hematoxylin-counterstained nuclei. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. This staining demonstrates detection of rat CD103 using this Rodent Itgae Antibody.



Mouse Rat CD103 Antibody Staining in Mouse Colon by IHC. Immunohistochemistry of FFPE mouse colon tissue using Mouse Rat CD103 Antibody shows discrete brown staining in scattered cells within the intestinal mucosa and villous structures. Positive cells are interspersed among predominantly hematoxylin-counterstained epithelial and stromal cells, producing a heterogeneous pattern rather than uniform epithelial staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The observed cellular staining demonstrates detection of mouse CD103 using this Rodent Itgae Antibody.

Description

Mouse Rat CD103 Antibody recognizes Itgae, the integrin alpha E subunit commonly designated CD103. Integrin alpha E associates with integrin beta 7 to form the alpha E beta 7 heterodimer, a cell-surface adhesion receptor involved in interactions between immune cells and epithelial tissues. CD103 is particularly associated with lymphocyte populations residing at mucosal and epithelial sites, where interaction with E-cadherin can contribute to cellular adhesion and tissue retention. The Itgae protein therefore provides an important marker for studying the localization and phenotype of immune cells within peripheral tissues.

CD103 is widely studied in intraepithelial lymphocytes and subsets of tissue-resident memory T cells. These populations can remain positioned within tissues and participate in localized immune surveillance and responses. Itgae expression is influenced by signals within the tissue microenvironment, including transforming growth factor beta, and is investigated in relation to lymphocyte differentiation, tissue residency and mucosal immunity. A Rodent Itgae Antibody can be particularly useful for research using experimental models to examine these processes in intact tissues and disease systems.

Itgae is also relevant to studies of inflammatory responses, infection, transplantation and tumor immunity. CD103-positive immune populations are investigated for their ability to occupy epithelial compartments and maintain long-term tissue residence. In cancer research, CD103 is frequently studied in tissue-resident and tumor-infiltrating lymphocyte populations, where its expression can help characterize immune cells positioned within or adjacent to epithelial tumor environments. Rodent models provide important experimental systems for investigating these aspects of CD103 biology and their relationship to immune cell localization and function.

This rabbit polyclonal antibody was generated against a broad recombinant region of mouse Itgae. Its polyclonal nature provides recognition of multiple epitopes within the immunogen and makes it useful for investigating CD103-associated biology in experimentally supported rodent systems. NSJ Bioreagents offers this antibody for research into Itgae expression, mucosal immunity and tissue-resident immune populations. A Mouse Rat CD103 Antibody can provide a useful reagent for studying CD103 expression and Itgae-associated immune biology in mouse and rat research models.

For broader CD103 validation including protein microarray analysis, see our CD103 Antibody ITGAE/2063 / Integrin Alpha E Monoclonal Antibody page.

Application Notes

Optimal dilution of the Mouse Rat CD103 Antibody / Rodent Itgae Antibody should be determined by the researcher.

Immunogen

Recombinant mouse protein (amino acids F20-E1061) was used as the immunogen for the Mouse Rat CD103 Antibody.

Storage

After reconstitution, the Mouse Rat CD103 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Rodent Itgae antibody, mouse CD103 antibody, rat CD103 antibody, Integrin alpha E antibody, Itgae antibody, CD103 antigen antibody, HML-1 antigen antibody

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