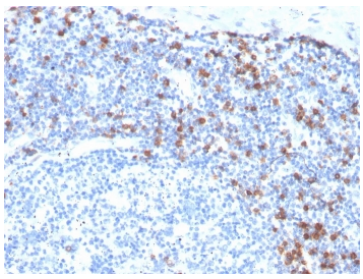
ITGAE Antibody ITGAE/3904R / CD103 Recombinant Antibody [clone ITGAE/3904R] (V8419)

Catalog No.	Formulation	Size
V8419-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8419-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8419SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

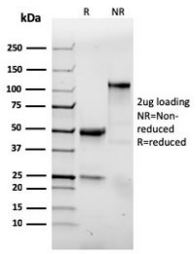
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ITGAE/3904R
Purity	Protein A affinity chromatography
UniProt	P38570
Localization	Cell surface and cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This ITGAE Antibody ITGAE/3904R / CD103 Recombinant Antibody is available for research use only.



ITGAE Antibody ITGAE/3904R Staining in Human Tonsil by IHC. Immunohistochemistry of FFPE human tonsil tissue using ITGAE Antibody (clone ITGAE/3904R) shows distinct brown staining in scattered lymphoid cells, with positive cells particularly evident within and around portions of the lymphoid compartment. The heterogeneous cellular distribution contrasts clearly with the densely hematoxylin-counterstained background and is consistent with CD103 expression in a subset of tonsillar lymphocytes. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9, 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. This pattern demonstrates CD103 detection using this CD103 Recombinant Antibody.



ITGAE Antibody ITGAE/3904R Purity and Integrity by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free ITGAE Antibody (clone ITGAE/3904R) with 2 ug loaded per lane shows the expected recombinant immunoglobulin migration profiles under reducing (R) and non-reducing (NR) conditions. Under reducing conditions, prominent heavy and light chain bands are visible at approximately 50 kDa and 25 kDa, respectively, while the non-reduced antibody migrates predominantly as an intact species near 150 kDa. Limited additional staining is evident, supporting the integrity and purity of this CD103 Recombinant Antibody preparation.

Description

ITGAE Antibody ITGAE/3904R recognizes integrin alpha E, a cell-surface adhesion protein encoded by the ITGAE gene and commonly designated CD103. Integrin alpha E associates with integrin beta 7 to form the alpha E beta 7 heterodimer, a member of the beta 7 integrin subfamily. CD103 is particularly associated with lymphocyte populations found within epithelial and mucosal tissues. Interaction of alpha E beta 7 with E-cadherin contributes to the localization and retention of selected immune cells within epithelial compartments, linking ITGAE expression to tissue-specific immune surveillance and cellular adhesion.

CD103 is widely studied as a marker of intraepithelial lymphocytes and subsets of tissue-resident memory T cells. These populations can remain positioned within peripheral tissues where they contribute to localized immune responses. Expression of integrin alpha E can be influenced by signals within the tissue microenvironment, including transforming growth factor beta, and is therefore investigated in studies of lymphocyte differentiation, tissue residency and mucosal immunity. A CD103 Recombinant Antibody can also support research examining the relationship between adhesion molecules and the organization of immune cells within tissues.

ITGAE expression has additional relevance in cancer and hematologic research. CD103 is strongly associated with hairy cell leukemia and is studied as part of its characteristic immunophenotype. The protein may also be expressed by selected lymphoid malignancies. In solid tumors, CD103-positive tumor-infiltrating lymphocytes are of interest because CD103 can identify tissue-resident immune populations positioned within or near epithelial tumor compartments. Investigation of these cells has expanded interest in integrin alpha E as a marker connecting immune phenotype, tissue localization and tumor-associated immunity.

Clone ITGAE/3904R is a recombinant rabbit monoclonal antibody directed against human ITGAE. Its recombinant format provides a defined antibody sequence for research involving CD103 and integrin alpha E biology. NSJ Bioreagents offers clone ITGAE/3904R for studies of lymphocyte localization, tissue-resident immunity and CD103-associated immune biology. An ITGAE Antibody can provide a useful reagent for investigating integrin alpha E expression and the biology of CD103-positive immune cell populations.

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 ITGAE Antibody ITGAE/3904R / CD103 Recombinant Antibody should be determined by the researcher.

Immunogen

Recombinant human ITGAE partial protein was used as the immunogen for the ITGAE Antibody ITGAE/3904R.

Storage

Store the ITGAE Antibody ITGAE/3904R at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD103 antibody, Integrin alpha E antibody, Integrin alpha E beta 7 antibody, alpha E integrin antibody, CD103 antigen antibody, HML-1 antigen antibody

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