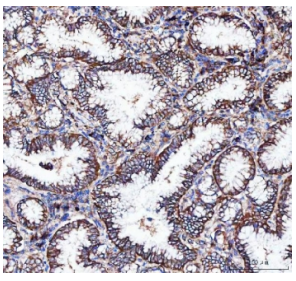
Integrin Alpha 3 Antibody / CD49c Polyclonal Antibody (RQ7004)

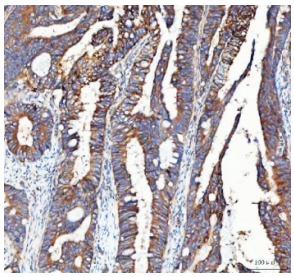
Catalog No.	Formulation	Size
RQ7004	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

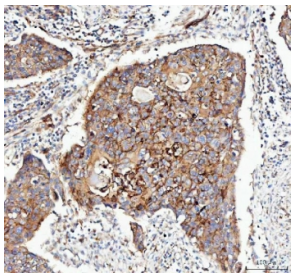
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P26006
Applications	Western blot: 0.5-1 ug/ml Flow cytometry: 1-3ug/million cells Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This Integrin Alpha 3 Antibody / CD49c Polyclonal Antibody is available for research use only.



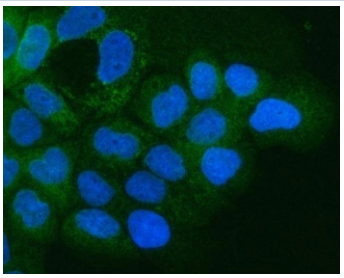
Integrin Alpha 3 Antibody by IHC in human lung adenocarcinoma. Immunohistochemistry of FFPE human lung adenocarcinoma tissue using Integrin Alpha 3 Antibody. Brown DAB immunoreactivity is prominent in tumor cells, with membranous and cytoplasmic staining outlining glandular structures. Hematoxylin counterstaining highlights blue nuclei. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA buffer for 20 minutes. This CD49c Polyclonal Antibody detects integrin alpha 3, a cell adhesion receptor involved in extracellular matrix interactions.



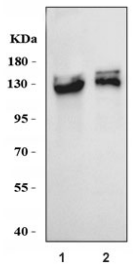
Integrin Alpha 3 Antibody by IHC in human colorectal adenocarcinoma. Immunohistochemistry of FFPE human colorectal adenocarcinoma tissue using Integrin Alpha 3 Antibody. Brown DAB staining is visible in malignant epithelial cells, with prominent membranous and cytoplasmic immunoreactivity along glandular structures. Surrounding stromal tissue shows comparatively weaker staining, while hematoxylin highlights blue nuclei. Antigen retrieval was performed by boiling tissue sections in pH 8 EDTA buffer for 20 minutes. This CD49c Polyclonal Antibody recognizes integrin alpha 3, a laminin-binding cell adhesion receptor.



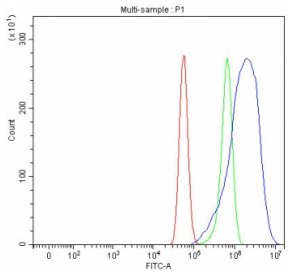
Integrin Alpha 3 Antibody by IHC in human esophageal squamous carcinoma. Immunohistochemistry of FFPE human esophageal squamous carcinoma tissue using Integrin Alpha 3 Antibody. Strong brown DAB immunoreactivity is visible throughout a prominent tumor cell cluster, with membranous and cytoplasmic staining. Surrounding stromal regions exhibit comparatively limited staining. Hematoxylin counterstaining highlights blue nuclei and tissue architecture. Heat-induced epitope retrieval was performed in pH 8 EDTA buffer for 20 minutes. This CD49c Polyclonal Antibody detects integrin alpha 3 in malignant squamous epithelial cells.



Integrin Alpha 3 Antibody by IF/ICC in human A431 cells. Immunofluorescence staining of FFPE human A431 cells using Integrin Alpha 3 Antibody. Green fluorescence highlights integrin alpha 3 expression, with predominantly cytoplasmic and peripheral cellular staining. Nuclei are counterstained blue with DAPI. Heat-induced epitope retrieval was performed by steaming in pH 6 citrate buffer for 20 minutes. This CD49c Polyclonal Antibody detects a transmembrane adhesion receptor involved in cell-matrix interactions and cellular migration.



Integrin Alpha 3 Antibody by WB in human U-87 MG and A431 cells. Western blot analysis of human U-87 MG (lane 1) and A431 (lane 2) cell lysates using Integrin Alpha 3 Antibody. Prominent immunoreactive bands are detected at approximately 130-150 kDa, consistent with the expected molecular weight range of glycosylated integrin alpha 3. The A431 sample shows an additional closely migrating band within this range. This CD49c Polyclonal Antibody recognizes ITGA3, a transmembrane glycoprotein involved in cell adhesion and extracellular matrix signaling.



Integrin Alpha 3 Antibody by FACS in human U-87 MG cells. Flow cytometry analysis of human U-87 MG cells using Integrin Alpha 3 Antibody at 1 ug per million cells following blocking with goat serum. The overlay histogram demonstrates a clear rightward fluorescence shift in antibody-stained cells (blue) compared with the isotype control (green) and unstained control (red). This CD49c Polyclonal Antibody detects integrin alpha 3 in U-87 MG cells, demonstrating immunoreactivity under the tested flow cytometry conditions.

Description

Integrin Alpha 3 Antibody recognizes integrin alpha 3, a cell surface adhesion protein encoded by the ITGA3 gene. Also known as CD49c, VLA-3 alpha chain, and GAPB3, integrin alpha 3 belongs to the integrin family of heterodimeric transmembrane receptors that mediate interactions between cells and the extracellular matrix. It associates with integrin beta 1 (CD29) to form the alpha 3 beta 1 integrin complex, which functions primarily as a receptor for laminins. This complex contributes to cellular adhesion, migration, tissue organization, and communication between extracellular matrix components and intracellular signaling pathways.

The human ITGA3 gene is located on chromosome 17q21.33 and encodes a protein containing approximately 1051 amino acids. Integrin alpha 3 has a calculated molecular weight near 117 kDa, although extensive glycosylation and post-translational processing influence its apparent molecular weight. The protein contains a large extracellular domain responsible for ligand interactions, a single transmembrane region, and a short cytoplasmic tail involved in intracellular protein associations. Proteolytic processing generates mature extracellular subunits that remain associated within the receptor complex.

Integrin alpha 3 beta 1 is particularly important for epithelial cell attachment to basement membranes. Through its interactions with laminins, the receptor helps maintain tissue integrity while supporting cell movement during development, wound healing, and tissue remodeling. Integrin-mediated signaling also influences cytoskeletal organization, cell polarity, and cellular survival. These functions involve interactions with focal adhesion proteins and signaling molecules that coordinate responses to changes in the extracellular environment.

ITGA3 contributes to the development and maintenance of several organs, including the kidneys, lungs, and skin. Pathogenic variants in ITGA3 can cause a rare multisystem disorder characterized by interstitial lung disease, nephrotic syndrome, and epidermolysis bullosa. Integrin alpha 3 also participates in neuronal migration and cortical development, where interactions between migrating neurons and their surrounding environment influence cellular positioning. The CD49c Polyclonal Antibody is relevant to research investigating these developmental and structural functions.

Altered integrin alpha 3 expression has been associated with changes in cell migration, epithelial remodeling, and tumor progression. Its interactions with extracellular matrix proteins can influence cancer cell adhesion, invasion, and communication with surrounding stromal tissues. NSJ Bioreagents offers antibodies targeting this adhesion receptor for research into integrin biology and cellular signaling. An Integrin Alpha 3 Antibody provides a tool for studying CD49c expression and its involvement in extracellular matrix interactions, tissue organization, and cellular migration.

For an alternative antibody targeting the same cell adhesion receptor, see our ITGA3 Antibody.

Application Notes

Optimal dilution of the Integrin Alpha 3 Antibody / CD49c Polyclonal Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids L96-L324) was used as the immunogen for the Integrin alpha 3 antibody.

Storage

After reconstitution, the Integrin alpha 3 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

ITGA3 antibody, CD49c antibody, VLA-3 Alpha Chain antibody, Integrin Alpha-3 antibody, Very Late Antigen 3 Alpha Chain antibody, GAPB3 antibody

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