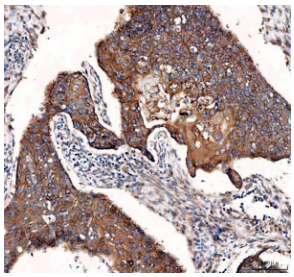
ITGA3 Antibody / Integrin Alpha 3 Polyclonal Antibody (RQ4580)

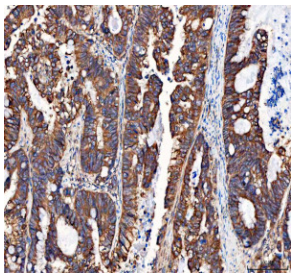
Catalog No.	Formulation	Size
RQ4580	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

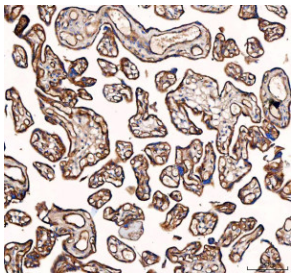
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P26006
Localization	Plasma membrane
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence (FFPE): 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This ITGA3 Antibody / Integrin Alpha 3 Polyclonal Antibody is available for research use only.



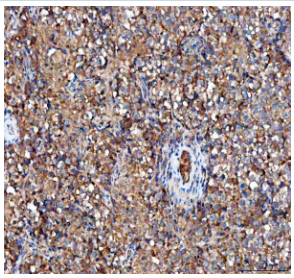
ITGA3 Antibody by IHC in human esophageal squamous carcinoma. Immunohistochemistry of FFPE human esophageal squamous carcinoma using ITGA3 Antibody at 2 ug/ml. Strong brown immunoreactivity is visible throughout malignant squamous epithelial cells, with prominent membranous staining and additional cytoplasmic labeling. Adjacent connective tissue exhibits comparatively weaker staining. Hematoxylin counterstaining identifies blue nuclei. Antigen retrieval was performed using EDTA buffer at pH 8.0, followed by overnight incubation at 4oC. This Integrin Alpha 3 Polyclonal Antibody demonstrates CD49c immunoreactivity in esophageal carcinoma tissue.



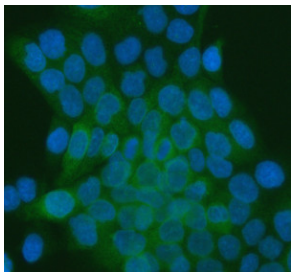
ITGA3 Antibody by IHC in human colon cancer. Immunohistochemistry of FFPE human colon cancer tissue using ITGA3 Antibody at 2 ug/ml. Brown DAB staining is prominent in malignant epithelial cells, with membranous and cytoplasmic immunoreactivity outlining glandular structures. Surrounding stromal regions show comparatively limited staining, while hematoxylin highlights blue nuclei. Heat-mediated antigen retrieval was performed using EDTA buffer at pH 8.0, followed by overnight primary antibody incubation at 4oC. This Integrin Alpha 3 Polyclonal Antibody detects CD49c in human colorectal tumor tissue.



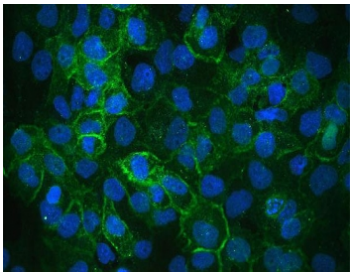
ITGA3 Antibody by IHC in human placenta. Immunohistochemistry of FFPE human placenta tissue using ITGA3 Antibody at 2 ug/ml. Brown DAB immunoreactivity is visible along the outer surfaces of chorionic villi, with prominent staining in trophoblast-associated regions. Hematoxylin counterstaining highlights blue nuclei within the villous structures. Heat-mediated antigen retrieval was performed using EDTA buffer at pH 8.0, followed by overnight primary antibody incubation at 4oC. This Integrin Alpha 3 Polyclonal Antibody detects CD49c, a receptor involved in cell adhesion and extracellular matrix interactions.



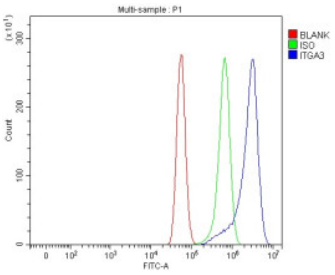
ITGA3 Antibody by IHC in human testicular cancer. Immunohistochemistry of FFPE human testicular cancer tissue using ITGA3 Antibody at 2 ug/ml. Brown immunoreactivity is distributed throughout tumor-associated cells, with variable membranous and cytoplasmic staining. Hematoxylin counterstaining highlights blue nuclei and surrounding tissue architecture. Heat-mediated antigen retrieval was performed using EDTA buffer at pH 8.0, followed by overnight primary antibody incubation at 4oC. This Integrin Alpha 3 Polyclonal Antibody demonstrates CD49c immunoreactivity in human testicular tumor tissue.



ITGA3 Antibody by IF in A431 cells. Immunofluorescence staining of human A431 cells using ITGA3 Antibody at 5 ug/ml. Green Fluoro488 fluorescence is visible along cell boundaries and throughout portions of the cytoplasm, consistent with the distribution of integrin alpha 3. Nuclei are counterstained blue with DAPI. Enzymatic antigen retrieval was performed for 15 minutes, followed by overnight primary antibody incubation at 4oC. Fluoro488-conjugated goat anti-rabbit IgG was used at 1:500. This Integrin Alpha 3 Polyclonal Antibody demonstrates cellular detection of CD49c.



ITGA3 Antibody by IF in human A431 tumor cell line. Immunofluorescence staining of FFPE human A431 cells using ITGA3 Antibody at 2 ug/ml. Green fluorescence highlights integrin alpha 3 expression, with prominent membranous and cytoplasmic staining. Nuclei are counterstained blue with DAPI. Heat-induced epitope retrieval was performed by steaming in pH 6 citrate buffer for 20 minutes. This Integrin Alpha 3 Polyclonal Antibody detects CD49c, a cell adhesion receptor involved in extracellular matrix interactions and cellular migration.



ITGA3 Antibody by FACS in human U87 cells. Flow cytometry analysis of paraformaldehyde-fixed human U87 cells using ITGA3 Antibody at 1 ug per 1 x 10^6 cells. The overlay histogram shows a clear rightward fluorescence shift with ITGA3 staining (blue) compared with the rabbit IgG isotype control (green) and unstained control (red). Cells were labeled with Fluoro488-conjugated goat anti-rabbit IgG. This Integrin Alpha 3 Polyclonal Antibody detects CD49c in fixed U87 cells.

Description

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

The human ITGA3 gene is located on chromosome 17q21.33 and encodes a protein of approximately 1051 amino acids with a calculated molecular weight near 117 kDa. Integrin alpha 3 contains a large extracellular region involved in ligand recognition, a single transmembrane segment, and a short cytoplasmic tail that participates in intracellular protein interactions. Extensive N-linked glycosylation contributes to its maturation and can increase its apparent molecular weight to approximately 130-150 kDa. Proteolytic processing of the extracellular region also contributes to the structural organization of the mature receptor.

Integrin alpha 3 beta 1 plays an important role in epithelial cell attachment to basement membranes, particularly through interactions with laminin isoforms. These adhesive contacts support tissue integrity while allowing cells to respond dynamically to changes in their surrounding matrix. Integrin signaling also influences cytoskeletal organization, cell polarity, and migration through interactions with focal adhesion proteins and pathways involving FAK, SRC, and other regulatory molecules. The Integrin Alpha 3 Polyclonal Antibody is relevant to research investigating these processes and their roles in cellular adhesion and signaling.

ITGA3 contributes to the development and maintenance of several tissues, including skin, kidney, and lung. Pathogenic variants in the ITGA3 gene can cause a rare multisystem disorder involving interstitial lung disease, nephrotic syndrome, and epidermolysis bullosa. Integrin alpha 3 also participates in neuronal migration and cortical development, where cell-matrix interactions help coordinate neuronal positioning. These functions highlight the importance of integrin-mediated adhesion in both tissue development and structural maintenance.

Altered ITGA3 expression has been investigated in cancer progression, epithelial remodeling, and wound healing. Changes in integrin-mediated adhesion may influence tumor cell migration, invasion, and interactions with the surrounding extracellular matrix. NSJ Bioreagents offers antibodies targeting ITGA3 for research into cell adhesion and tissue biology. An ITGA3 Antibody provides a tool for examining integrin alpha 3 expression and its involvement in extracellular matrix interactions, cellular migration, and tissue homeostasis.

Explore our Immunology Antibodies collection for additional antibodies targeting cell adhesion molecules, integrins, and proteins involved in immune cell migration and signaling.

Application Notes

Optimal dilution of the ITGA3 antibody should be determined by the researcher.

Immunogen

Amino acids YSVALHRQTERQQRYLLLAGAPRELAVPDGYTNR were used as the immunogen for the ITGA3 antibody.

Storage

After reconstitution, the ITGA3 Antibody / Integrin Alpha 3 Polyclonal 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

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

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