

Datasheet for 600-401-R13**ITGA3 Antibody****Overview**

Description:	Anti-ITGA3 (RABBIT) Antibody - 600-401-R13
Item No.:	600-401-R13
Size:	100 µg
Applications:	IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	ITGA3(INTEGRIN, ALPHA-3), also called CD49C, VLA3 or GAPB3, is a protein that in humans is encoded by the ITGA3 gene. ITGA3 is an integrin alpha subunit which is also a member of the family of cell surface adhesion molecules. ITGA3 is mapped to chromosome 17 and its exact cytogenetic location is 17q21.33. ITGA3 makes up half of the alpha3beta1 integrin duplex that plays a role in neural migration and corticogenesis together with beta-1 subunit. A functional link between DAB1 phosphorylation and ITGA3 signaling drives the timely detachment of migrating neurons from radial glial fibers. Expression of human ITGA3 increased the infectivity of virus for Chinese hamster ovary cells. ITGA3 also contains 13 potential N-glycosylation sites, 2 potential cleavage sites, and the 7 N-terminal repeating units characteristic of ITGAs. Recombinant ITGA3 is expressed as a 150-kD protein as the same size as the native protein by the western blot analysis. This antibody is suitable for researchers interested in cancer research.
Synonyms:	CD49 antigen-like family member C,FRP-2,Galactoprotein B3,
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ITGA3
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	ITGA3 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a sequence at the N-terminal of human ITGA3.
Purity/Specificity:	Anti-ITGA3 antibody is directed against human ITGA3 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human, mouse, and rat based on 100% homology for the immunogen sequence. Cross reactivity with ITGA3 from other sources has not been determined.
Relevant Links:	• UniProtKB - P26006 • GenelD - 3675 • NCBI - NP_002195.1

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-ITGA3 is tested for Immunohistochemistry-P, ICC/IF, Flow Cytometry, and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~116.6 kDa corresponding to the appropriate cell lysate or extract. 0.05 mg sodium azide and 0.05 mg Thimerosal have been added as preservatives.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1-3µg/1x10 ⁶ cells
IF:	5µg/mL
IHC:	2-5µg/mL
WB:	0.1-0.5µg/mL

Formulation

Physical State:	Lyophilized
Concentration:	0.5 mg/mL by UV absorbance at 280 nm
Buffer:	0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃
Preservative:	0.05mg Thimerosal
Stabilizer:	5mg BSA
Reconstitution Volume:	100 µL

Reconstitution Buffer: Restore with deionized water (or equivalent)

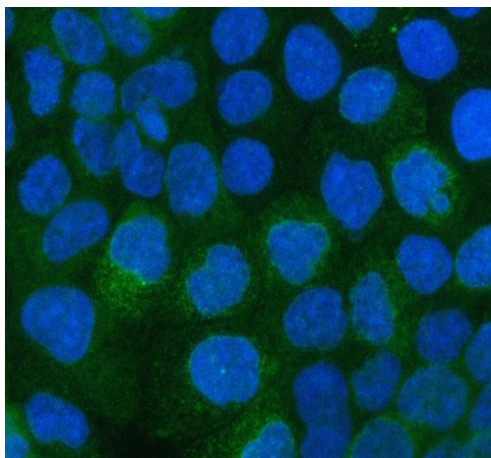
Shipping & Handling

Shipping Condition: Ambient

Storage Condition: Store vial at 4° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

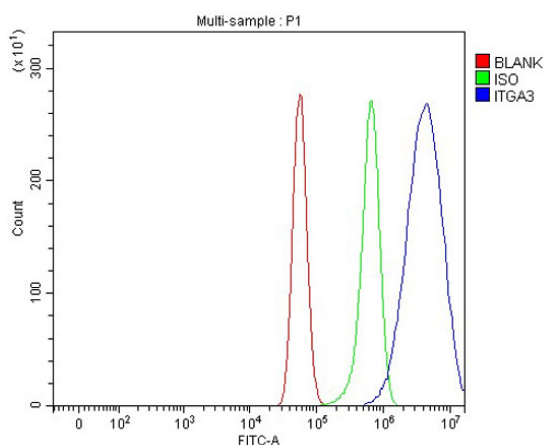
Expiration: Expiration date is one (1) year from date of receipt.

Images



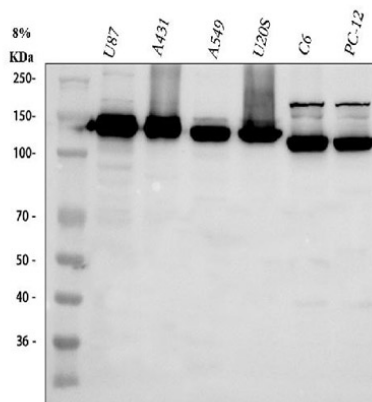
Immunofluorescence Microscopy

Immunofluorescence analysis of ITGA3 using anti-ITGA3 antibody. ITGA3 was detected in an immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL rabbit anti-ITGA3 Antibody overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry

Flow Cytometry analysis of U87 cells using anti-ITGA3 antibody. Overlay histogram showing U87 cells stained with (p/n 600-401-R13, Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-ITGA3 Antibody (p/n 600-401-R13, 1 µg/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (5-10 µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control rabbit IgG antibody (1 µg/1x10⁶, Green line) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

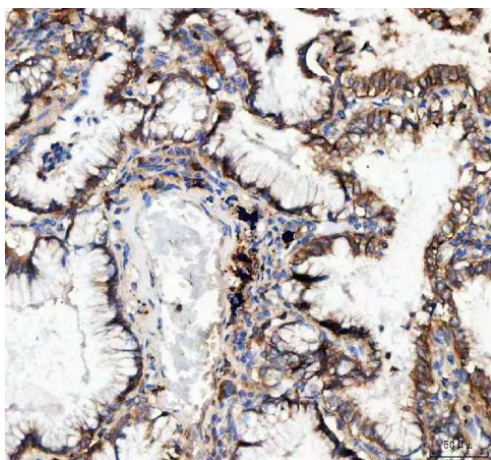


Western Blot

Western blot analysis of ITGA3 using anti-ITGA3 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30µg of sample under reducing conditions.

Lane 1: human U87 whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human U2OS whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: rat PC-12 whole cell lysates.

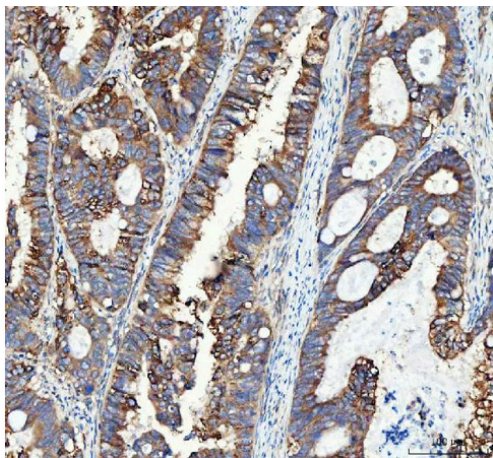
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with affinity purified rabbit anti-ITGA3 antigen polyclonal antibody at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for ITGA3 at approximately 130 kDa. The expected band size for ITGA3 is at 117 kDa.



Immunohistochemistry

Immunohistochemistry analysis of ITGA3 using anti-ITGA3 antibody.

ITGA3 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml rabbit anti-ITGA3 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



Immunohistochemistry

Immunohistochemistry analysis of ITGA3 using anti-ITGA3 antibody.

ITGA3 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml rabbit anti-ITGA3 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.