abcam

ab317020

Anti-Integrin beta 8 antibody [EPR27246-85]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR27246-85
Purification technique	Affinity purification Protein A
Specificity	Not suitable for mouse ICC.
Concentration	0.512 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Integrin beta-8

Function	Integrin alpha-V:beta-8 (ITGAV:ITGB8) is a receptor for fibronectin (PubMed:1918072). It recognizes the sequence R-G-D in its ligands (PubMed:1918072). Integrin alpha-V:beta-6 (ITGAV:ITGB6) mediates R-G-D-dependent release of transforming growth factor beta-1 (TGF-beta-1) from regulatory Latency-associated peptide (LAP), thereby playing a key role in TGF-beta-1 activation on the surface of activated regulatory T-cells (Tregs) (Probable). Required during vasculogenesis (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Integrin beta 8 also known as β8 integrin or ITGB8 is a transmembrane protein that functions mechanically as part of the integrin family. It forms heterodimers with the alpha v subunit resulting in the integrin alpha v beta 8 complex. This complex plays a role in cell adhesion and signaling by binding to extracellular matrix proteins like latency-associated peptide TGF-β. Integrin beta 8 is expressed in various tissues notably in the brain lungs and intestinal epithelium. The protein has a mass of approximately 85 kDa.
Biological function summary	Integrin beta 8 participates in the regulation of cellular processes such as growth differentiation and migration. The integrin alpha v beta 8 complex serves as a receptor for latent TGF-β activation an important step in modulating TGF-β signaling. This activation influences processes such as extracellular matrix

	remodeling and immune response regulation. Integrin beta 8 interacts with actin cytoskeleton regulatory proteins to mediate these cellular changes.
Pathways	Integrin beta 8 influences both TGF-β and Wnt signaling pathways. Its role in TGF-β pathway involves activation of latent TGF-β impacting tissue homeostasis and immune regulation. In connection to Wnt signaling integrin beta 8 modulates cell proliferation and differentiation. The protein shares functional relations with other integrins like integrin beta 6 which also interacts with similar ligands and pathways coordinating cellular response during development and repair processes.
Associated diseases and disorders	Integrin beta 8 associates with conditions like brain tumors and fibrosis. For example its upregulation in glioblastoma multiforme contributes to the invasive properties of tumor cells by modulating TGF-β signaling similar to the role observed with integrin beta 6 in fibrotic diseases. This connection emphasizes the therapeutic potential of targeting integrin beta 8 to mitigate disease progression and improve treatment efficacy.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

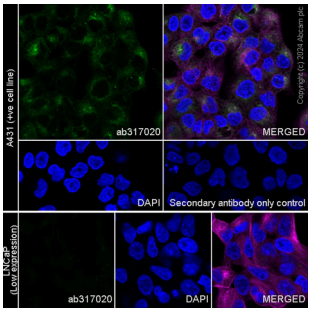
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images



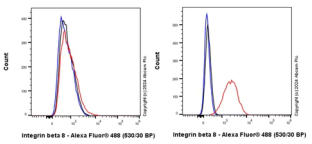
Immunocytochemistry/ Immunofluorescence - Anti-Integrin beta 8 antibody [EPR27246-85] (ab317020)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A431 (human epidermoid carcinoma epithelial cell) cells labelling Integrin beta 8 with ab317020 at 1/50 (10.2 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green).

Confocal image showing cytoplasmic staining in A431 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue).
Low expression: LNCaP (PMID: 25886373).
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5ug/ml) dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/ml) dilution.

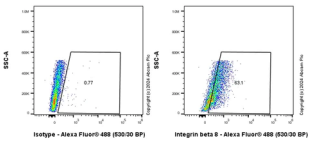


Flow Cytometry (Intracellular) - Anti-Integrin beta 8 antibody [EPR27246-85] (ab317020)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized LNCaP (human prostate carcinoma epithelial cell, Left) / A431 (human epidermoid carcinoma epithelial cell, Right) cells labelling Integrin beta 8 with ab317020 at 1/500 dilution (0.1 ug)/Red compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

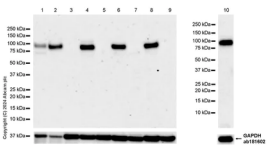
Low expression: LNCaP (PMID:25886373)



Flow Cytometry (Intracellular) - Anti-Integrin beta 8 antibody [EPR27246-85] (ab317020)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized mouse primary neuron cells labelling Integrin beta 8 with ab317020 at 1/50 dilution (1 ug)/Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Western blot - Anti-Integrin beta 8 antibody [EPR27246-85] (ab317020)

Integrin beta 8 Western blot staining using rabbit Anti-Integrin beta 8 antibody

Low expression: LNCaP (PMID:25886373), liver.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.
All lanes:
Western blot - Anti-Integrin beta 8 antibody [EPR27246-85] (ab317020) at 1/1000 dilution

Lane 1:
A431 (human epidermoid carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HaCaT (human skin keratinocyte) whole cell lysate at 20 µg

Lane 3:
LNCaP (human prostate carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
Human cerebellum tissue lysate at 20 µg

Lane 5:
Human liver tissue lysate at 20 µg

Lane 6:
Mouse brain tissue lysate at 20 µg

Lane 7:
Mouse liver tissue lysate at 20 µg

Lane 8:
Rat brain tissue lysate at 20 µg

Lane 9:
Rat liver tissue lysate at 20 µg

Lane 10:
Human brain tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 95 kDa

Exposure time: 180s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.