abcam

ab77906

Anti-Integrin alpha V + beta 6 antibody [10D5] - BSA and Azide free

Anti-Integrin alpha V + beta 6 antibody [10D5] - BSA and Azide free (ab77906) is a mouse monoclonal antibody provided in a PBS only buffer for easy conjugation detecting Integrin alpha V + beta 6 in Flow Cytometry, IP, FuncS (Neut/Block). Suitable for Human, Mouse, Rat.

-Detects αVβ6 associated with epithelial activation in contexts of morphogenesis, injury response, and tumorigenesis.
-Highly specific for the αVβ6 integrin heterodimer
-Carrier-free format (no BSA, azide, or glycerol) for easy conjugation
-Trusted since 2009

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Itgav protein. The exact immunogen used to generate this antibody is proprietary information. Database link P43406
Carrier free	Yes
Clone number	10D5
Purification technique	Affinity purification Protein A
Specificity	ab77906 recognises alpha V beta 6 and does not recognize alpha V or other alpha V integrins.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Sterile filtered

Reactivity data

IP

Expected

Species	Mouse
Dilution info	-
Notes	because this antibody is an IgG2a, protein G or rabbit anti mouse IgG is helpful for capture.

Species	Rat
Dilution info	-
Notes	because this antibody is an IgG2a, protein G or rabbit anti mouse IgG is helpful for capture.

Species	Human
Dilution info	-
Notes	because this antibody is an IgG2a, protein G or rabbit anti mouse IgG is helpful for capture.

FuncS (Neut/Block)

Expected

Species	Mouse
Dilution info	-
Notes	Inhibition of alpha V beta 6 mediated cell adhesion and cell migration are achieved at a concentration of 100 µg/mL using beta 6 transfected cells tested against TGF beta LAP.

Species	Rat
Dilution info	-
Notes	Inhibition of alpha V beta 6 mediated cell adhesion and cell migration are achieved at a concentration of 100 µg/mL using beta 6 transfected cells tested against TGF beta LAP.

Species	Human

Dilution info	-
Notes	Inhibition of alpha V beta 6 mediated cell adhesion and cell migration are achieved at a concentration of 100 µg/mL using beta 6 transfected cells tested against TGF beta LAP.

Flow Cyt

Expected

Species	Mouse
Dilution info	-
Notes	Flow cytometry should be done with buffers containing 1 mM Mg, since the epitope recognized by this antibody is divalent cation dependent. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	Flow cytometry should be done with buffers containing 1 mM Mg, since the epitope recognized by this antibody is divalent cation dependent. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	Flow cytometry should be done with buffers containing 1 mM Mg, since the epitope recognized by this antibody is divalent cation dependent. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

WB

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Target data

See full target information ITGAV

Function

The alpha-V (ITGAV) integrins are receptors for vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin and vWF. They recognize the sequence R-G-D in a wide array of ligands. ITGAV:ITGB3 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:23125415). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling (PubMed:18441324). ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling (PubMed:28302677). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:19578119). ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:28873464). ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling (PubMed:29030430). ITGAV:ITGB3 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:18635536, PubMed:25398877). ITGAV:ITGB3 and ITGAV:ITGB6 act as receptors for fibrillin-1 (FBN1) and mediate R-G-D-dependent cell adhesion to FBN1 (PubMed:12807887, PubMed:17158881). Integrin alpha-V/beta-6 or alpha-V/beta-8 (ITGAV:ITGB6 or ITGAV:ITGB8) 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 (PubMed:15184403, PubMed:22278742, PubMed:28117447). ITGAV:ITGB3 acts as a receptor for CD40LG (PubMed:31331973). ITGAV:ITGB3 acts as a receptor for IBSP and promotes cell adhesion and migration to IBSP (PubMed:10640428). (Microbial infection) Integrin ITGAV:ITGB5 acts as a receptor for Adenovirus type C. (Microbial infection) Integrin ITGAV:ITGB5 and ITGAV:ITGB3 act as receptors for Coxsackievirus A9 and B1. (Microbial infection) Integrin ITGAV:ITGB3 acts as a receptor for Herpes virus 8/HHV-8. (Microbial infection) Integrin ITGAV:ITGB6 acts as a receptor for herpes simplex 1/HHV-1. (Microbial infection) Integrin ITGAV:ITGB3 acts as a receptor for Human parechovirus 1. (Microbial infection) Integrin ITGAV:ITGB3 acts as a receptor for West nile virus. (Microbial infection) In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Storage

Shipped at conditions	Blue Ice

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

Product Specifications
Anti-Integrin alpha V + beta 6 antibody [10D5] - BSA and Azide free (ab77906) is a mouse monoclonal antibody provided in a carrier-free, conjugation ready format.
ab77906 is validated in Flow Cyt, IP in human, mouse, rat samples.
Carrier-free antibodies are compatible with our best-in-class range of Lightning-Link® conjugation kits.
Anti-Integrin alpha V + beta 6 antibody [10D5] - BSA and Azide free (ab77906) specifically detects Integrin alpha V + beta 6 (UniProt ID: P06756; Molecular weight: 116kDa) and is sold in 50 µg selling sizes.

Quality and Validation
Antibody clone 10D5 has been cited over 19 times in peer reviewed journals and is trusted by the scientific community.
Anti-Integrin alpha V + beta 6 antibody [10D5] - BSA and Azide free (ab77906) has 5 independent reviews from customers.

Supplementary info

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

Activity summary	Integrin αvβ6 also known as integrin alpha V beta 6 or integrin avb6 is a protein that plays a significant role in cellular adhesion and signaling. This heterodimeric complex consists of alpha V and beta 6 subunits with a molecular weight around 150 kDa. Integrin αvβ6 is primarily expressed in epithelial cells and remains largely absent in normal tissues but becomes upregulated in activated or injured epithelial tissues. Due to its limited expression under normal conditions integrin αvβ6 presents a notable interest for research in tissue repair and related processes.
Biological function summary	Integrin αvβ6 engages in binding with specific ligands such as fibronectin vitronectin and latency-associated peptides. This protein forms a part of a larger integrin family existing as a heterodimer playing an important role in the activation of transforming growth factor-beta (TGF-β). The interaction between integrin αvβ6 and its ligands contributes to cell proliferation migration differentiation and modulation of the local cellular environment affecting tissue remodeling and immunity.

Pathways

	Integrin αvβ6 is involved in TGF-β signaling and the epithelial-mesenchymal transition (EMT) pathway. These pathways are fundamental for regulating developmental processes and tissue repair providing cues for cell fate and homeostasis. Additionally integrin αvβ6 associates with other proteins including fibronectin and vitronectin enhancing its role in mediating cell-extracellular matrix interactions which supports cellular communication and migration essential for these pathways.
Associated diseases and disorders	Integrin αvβ6 has been implicated in conditions like fibrosis and cancer. Its involvement in promoting EMT and activating TGF-β connects it closely with fibrotic diseases such as idiopathic pulmonary fibrosis where tissue scarring results from excessive collagen deposition. Regarding cancer integrin αvβ6 expression is often increased in tumors and contributes to tumor progression and metastasis particularly in pancreatic cancer. Integrin αvβ6 often collaborates with proteins like TGF-β which actively participate in pathways facilitating these disease processes.

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.

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Terms & Conditions.

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