abcam

ab195959

Anti-ITGA7 antibody [3C12]

Anti-ITGA7 antibody [3C12] (ab195959) is a mouse monoclonal antibody detecting ITGA7 in **Flow Cytometry, IHC-P**. Suitable for **Human, Mouse**.

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Integrin alpha-7 protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q61738
Clone number	3C12
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	10 µg/mL
Notes	

Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

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

Flow Cyt

Tested

Species	Mouse
Dilution info	10-20 µg/mL
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information ITGA7

Function Integrin alpha-7/beta-1 is the primary laminin receptor on skeletal myoblasts and adult myofibers. During myogenic differentiation, it may induce changes in the shape and mobility of myoblasts, and facilitate their localization at laminin-rich sites of secondary fiber formation. It is involved in the maintenance of the myofibers cytoarchitecture as well as for their anchorage, viability and functional integrity. Isoform Alpha-7X2B and isoform Alpha-7X1B promote myoblast migration on laminin 1 and laminin 2/4, but isoform Alpha-7X1B is less active on laminin 1 (In vitro). Acts as a Schwann cell receptor for laminin-2. Acts as a receptor of COMP and mediates its effect on vascular smooth muscle cells (VSMCs) maturation (By similarity). Required to promote contractile phenotype acquisition in differentiated airway smooth muscle (ASM) cells.

Storage

Shipped at conditions	Blue Ice
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

What is this antibody validated in?
Anti-ITGA7 antibody [3C12] (ab195959) is a mouse monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P) in Human, Mouse samples.

Supplementary info

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

Activity summary	ITGA7 also known as integrin alpha 7 is a transmembrane protein that plays an important role in cell adhesion and signaling. Weighing approximately 124 kDa ITGA7 is part of the integrin family of proteins functioning as a receptor that binds primarily to extracellular matrix proteins such as laminins. It is expressed largely in skeletal and cardiac muscle tissues but research shows its presence in other tissues like the nervous system.
Biological function summary	ITGA7 interacts with the beta-1 integrin subunit to form a heterodimeric receptor. This combination mediates cell-matrix adhesion promoting cell migration differentiation and survival. ITGA7 is also involved in the stabilization of mature muscle cells and development of muscle fibers. By engaging with specific laminin isoforms ITGA7 influences tissue architecture and function.
Pathways	Researchers recognize that ITGA7 is important in signaling pathways like the PI3K/Akt pathway which affects cell growth and survival. ITGA7 interacts with proteins like focal adhesion kinase (FAK) to transmit signals from the extracellular matrix to the inside of the cell. This communication helps regulate cellular responses and adaptability in dynamic environments.
Associated diseases and disorders	ITGA7 has connections to muscular dystrophy and certain types of cancer. Mutations or altered expression of ITGA7 can lead to muscular dystrophy where muscle function becomes compromised. In cancer altered ITGA7 expression may affect tumor progression and metastasis with connections to proteins such as

dystroglycan. Understanding these relationships is essential for developing targeted therapeutic interventions.

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

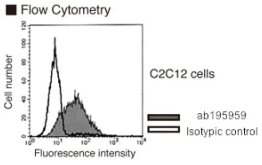
We do not recommend this combination. It is not covered by our product promise.

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.

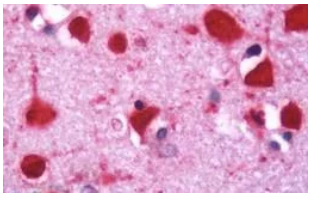
2 product images



Flow Cytometry - Anti-ITGA7 antibody [3C12] (ab195959)

ITGA7 Flow Cytometry staining using mouse Anti-ITGA7 antibody

Flow Cytometrical analysis of C2C12 cells labeling ITGA7 with ab195959 at 20 µg or an isotypic control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ITGA7 antibody [3C12] (ab195959)

ITGA7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-ITGA7 antibody

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human brain, cortex tissue labeling ITGA7 with ab195959 at 10 µg/mL.

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