

Product datasheet

Anti-ITGA7 antibody ab203254

★★★★☆ 2 Abreviews 11 References 2 Images

Overview

Product name	Anti-ITGA7 antibody
Description	Rabbit polyclonal to ITGA7
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human ITGA7 aa 700-800 conjugated to keyhole limpet haemocyanin. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. Database link: Q13683

[Run BLAST with](#)

[Run BLAST with](#)

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 0.1% BSA, 49% Water
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab203254 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration.
IHC-P		1/50 - 1/500.
Flow Cyt		Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Target

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 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.

Tissue specificity

Isoforms containing segment A are predominantly expressed in skeletal muscle. Isoforms containing segment B are abundantly expressed in skeletal muscle, moderately in cardiac muscle, small intestine, colon, ovary and prostate and weakly in lung and testes. Isoforms containing segment X2D are expressed at low levels in fetal and adult skeletal muscle and in cardiac muscle, but are not detected in myoblasts and myotubes. In muscle fibers isoforms containing segment A and B are expressed at myotendinous and neuromuscular junctions; isoforms containing segment C are expressed at neuromuscular junctions and at extrasynaptic sites. Isoforms containing segments X1 or X2 or, at low levels, X1X2 are expressed in fetal and adult skeletal muscle (myoblasts and myotubes) and cardiac muscle.

Involvement in disease

Defects in ITGA7 are the cause of muscular dystrophy congenital due to integrin alpha-7 deficiency (MDCI) [MIM:613204]. A form of congenital muscular dystrophy. Patients present at birth, or within the first few months of life, with hypotonia, muscle weakness and often with joint contractures.

Sequence similarities

Belongs to the integrin alpha chain family.
Contains 7 FG-GAP repeats.

Developmental stage

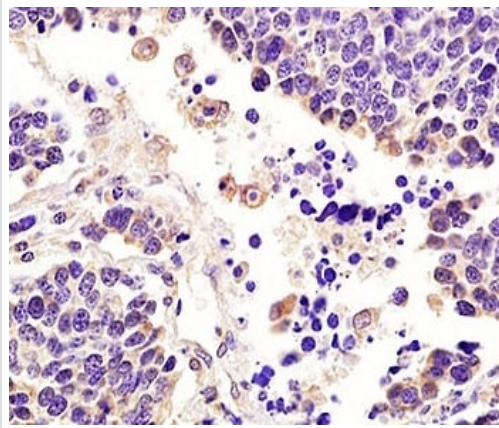
In renewing intestinal epithelium, expression of isoforms containing segment B correlates with the onset of enterocytic differentiation.

Post-translational modifications

ADP-ribosylated on at least two sites of the extracellular domain in skeletal myotubes. A 70 kDa form is created by proteolytic cleavage. Cleavage is elevated during myogenic differentiation and the cleaved form enhances cell adhesion and spreading on laminin.

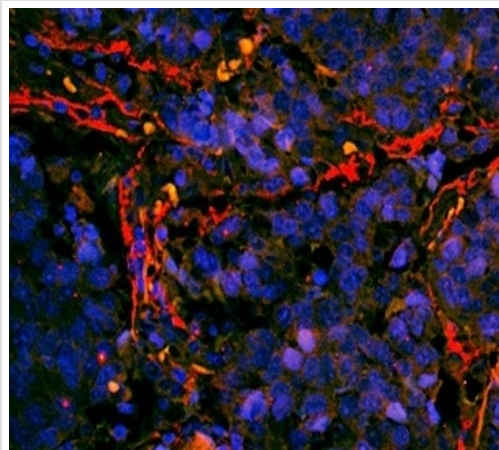
Cellular localization

Membrane.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ITGA7 antibody (ab203254)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human lung carcinoma tissue sections labeling ITGA7 with ab203254 at a 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ITGA7 antibody (ab203254)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human lung carcinoma tissue sections labeling ITGA7 with ab203254 at a 1/200 dilution, followed by conjugation to the secondary antibody (Goat Anti-Rabbit IgG, Cy3 conjugated) used at 1/200 dilution for 40 minutes at 37°C.

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