

**ITGA7 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP18839a****Specification**

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**ITGA7 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q13683](#)**ITGA7 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 3679**Other Names**

Integrin alpha-7, Integrin alpha-7 heavy chain, Integrin alpha-7 light chain, Integrin alpha-7 70 kDa form, ITGA7

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**ITGA7 Antibody (N-term) Blocking Peptide - Protein Information****Name** 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.

**Cellular Location**

Membrane; Single-pass type I membrane protein.

**Tissue Location**

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

### **ITGA7 Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **ITGA7 Antibody (N-term) Blocking Peptide - Images**

### **ITGA7 Antibody (N-term) Blocking Peptide - Background**

The protein encoded by this gene belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. They mediate a wide spectrum of cell-cell and cell-matrix interactions, and thus play a role in cell migration, morphologic development, differentiation, and metastasis. This protein functions as a receptor for the basement membrane protein laminin-1. It is mainly expressed in skeletal and cardiac muscles and may be involved in differentiation and migration processes during myogenesis. Defects in this gene are associated with congenital myopathy. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.

### **ITGA7 Antibody (N-term) Blocking Peptide - References**

Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010) Han, Y.C., et al. Cancer Res. 70(11):4375-4384(2010) Rooney, J.E., et al. Proc. Natl. Acad. Sci. U.S.A. 106(19):7991-7996(2009) Liu, J., et al. J. Biol. Chem. 283(51):35668-35678(2008) Tran, T., et al. Am. J. Respir. Cell Mol. Biol. 37(6):668-680(2007)