

## Cleaved-Integrin $\alpha$ 7 LC (E959) Polyclonal Antibody

<b>Catalog No :</b>	YC0091
<b>Reactivity :</b>	Human;Monkey
<b>Applications :</b>	WB;ELISA
<b>Target :</b>	Integrin $\alpha$ 7 LC
<b>Fields :</b>	>>PI3K-Akt signaling pathway;>>Focal adhesion;>>ECM-receptor interaction;>>Regulation of actin cytoskeleton;>>Human papillomavirus infection;>>Hypertrophic cardiomyopathy;>>Arrhythmogenic right ventricular cardiomyopathy;>>Dilated cardiomyopathy
<b>Gene Name :</b>	ITGA7
<b>Protein Name :</b>	Integrin alpha-7
<b>Human Gene Id :</b>	3679
<b>Human Swiss Prot No :</b>	Q13683
<b>Mouse Swiss Prot No :</b>	Q61738
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human ITGA7. AA range:940-989
<b>Specificity :</b>	Cleaved-Integrin $\alpha$ 7 LC (E959) Polyclonal Antibody detects endogenous levels of fragment of activated Integrin $\alpha$ 7 LC protein resulting from cleavage adjacent to E959.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. ELISA: 1:40000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Observed Band :** 25kD

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**Cell Pathway :** Focal adhesion;ECM-receptor interaction;Regulates Actin and Cytoskeleton;Hypertrophic cardiomyopathy (HCM);Arrhythmogenic right ventricular cardiomyopathy (ARVC);Dilated cardiomyopathy;

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**Background :** integrin subunit alpha 7(ITGA7) Homo sapiens 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. [provided by RefSeq, Feb 2009],

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**Function :** alternative products:Additional isoforms seem to exist. There is a combination of at least five alternatively spliced domains, three extracellular (X1, X2 and D) and two cytoplasmic (A and B). A third potential alternatively spliced cytoplasmic domain (C) does not appear to be expressed. In vitro generated isoform X2C shows function. So far detected are isoform Alpha-7X1A, isoform Alpha-7X2B (major), isoform Alpha-7X2DB (minor) and minor isoforms containing segment X1X2. Experimental confirmation may be lacking for some isoforms,developmental stage:In renewing intestinal epithelium, expression of isoforms containing segment B correlates with the onset of enterocytic differentiation.,disease:Defects in ITGA7 are associated with a form of congenital myopathy; a group of heterogeneous muscle disorders which are thought to result from abnormal muscle development. Muscle weakness is either no

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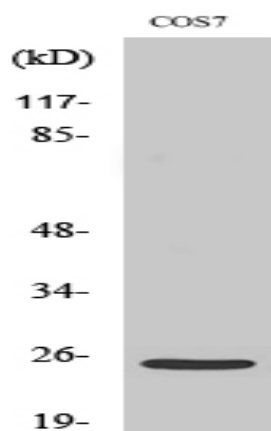
**Subcellular Location :** Membrane; Single-pass type I membrane protein.

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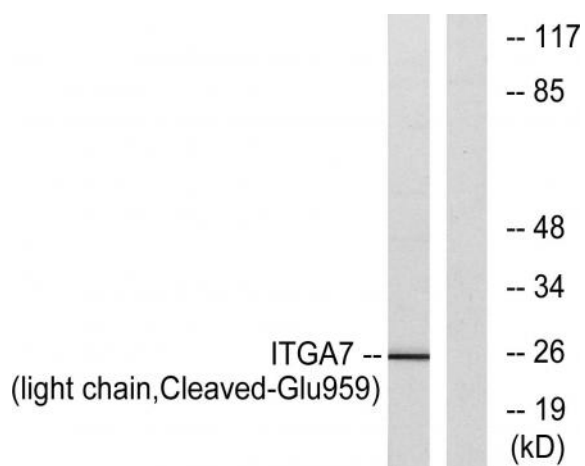
**Expression :** Isoforms containing segment A are predominantly expressed in skeletal muscle. Isoforms containing segment B are abundantly expressed in skeletal muscle, moderately in cardiac muscle, small intestine, colon, ovary and prostate and weakly in lung and testes. Isoforms containing segment 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.

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## Products Images



Western Blot analysis of various cells using Cleaved-Integrin  $\alpha 7$  LC (E959) Polyclonal Antibody



Western blot analysis of lysates from COS7 cells, treated with etoposide 25uM 1h, using ITGA7 (light chain, Cleaved-Glu959) Antibody. The lane on the right is blocked with the synthesized peptide.