
Product Name: Actinin- α 2/3 Rabbit Polyclonal Antibody**Catalog #: APRab06548**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight	103kDa

Antigen Information

Gene Name	ACTN2/ACTN3
Alternative Names	ACTN2; Alpha-actinin-2; Alpha-actinin skeletal muscle isoform 2; F-actin cross-linking protein; ACTN3; Alpha-actinin-3; Alpha-actinin skeletal muscle isoform 3; F-actin cross-linking protein
Gene ID	88/89
SwissProt ID	P35609/Q08043
Immunogen	The antiserum was produced against synthesized peptide derived from human Actinin alpha-2/3. AA range:31-80

Background

Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a muscle-specific, alpha actinin isoform that is expressed in both skeletal and cardiac muscles. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2013],disease:Defects in ACTN2 are the cause of cardiomyopathy dilated type 1AA (CMD1AA) [MIM:612158]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.,function:F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein.,similarity:Belongs to the alpha-actinin family.,similarity:Contains 1 actin-binding domain.,similarity:Contains 2 CH (calponin-homology) domains.,similarity:Contains 2 EF-hand domains.,similarity:Contains 4 spectrin repeats.,subcellular location:Colocalizes with MYOZ1 and FLNC at the Z-lines of skeletal muscle.,subunit:Homodimer; antiparallel. Also forms heterodimers with ACTN3. Interacts with ADAM12, MYOZ1, MYOZ2 and MYOZ3. Interacts via its C-terminal region with the LDB3 PDZ domain. Interacts with XIRP2.,tissue specificity:Expressed in both skeletal and cardiac muscle.,

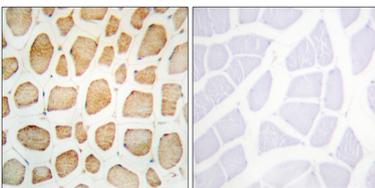
Research Area

Focal adhesion;Adherens_Junction;Adherens_Junction;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Systemic lupus erythematosus;Arrhythmogenic right ventricular cardiomyopathy (ARVC);

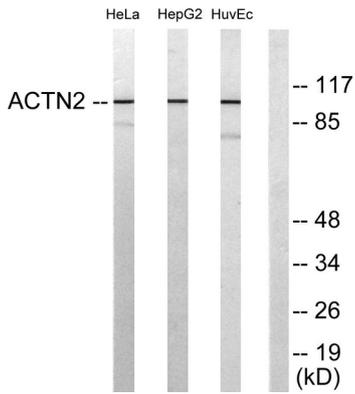
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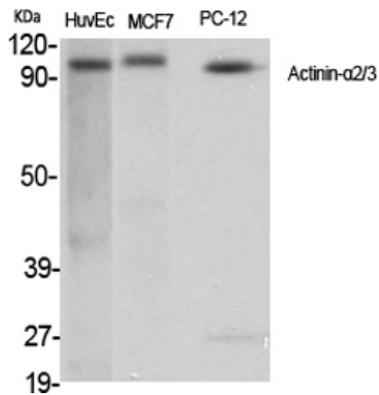
Immunofluorescence analysis of HeLa cells, using Actinin alpha-2/3 Antibody. The picture on the right is blocked with the synthesized peptide.



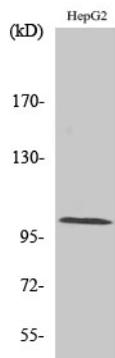
Immunohistochemistry analysis of paraffin-embedded human skeletal muscle tissue, using Actinin alpha-2/3 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HepG2, HeLa, and HUVEC cells, using Actinin alpha-2/3 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of various cells using Actinin- α 2/3 Polyclonal Antibody



Western blot analysis of HuvEc cells using Actinin- α 2/3 Polyclonal Antibody