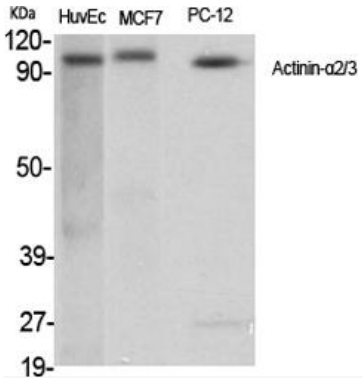
Actinin-α2/3 Polyclonal Antibody

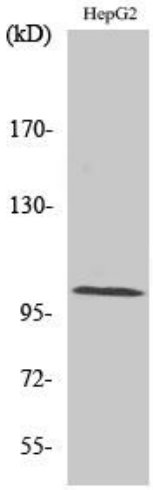
Catalog No	YP-Ab-16924
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	ACTN2/ACTN3
Protein Name	Alpha-actinin-2/3
Immunogen	The antiserum was produced against synthesized peptide derived from human Actinin alpha-2/3. AA range:31-80
Specificity	Actinin-α2/3 Polyclonal Antibody detects endogenous levels of Actinin-α2/3 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	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
Observed Band	103kD
Cell Pathway	Cytoplasm, myofibril, sarcomere, Z line . Colocalizes with MYOZ1 and FLNC at the Z-lines of skeletal muscle.
Tissue Specificity	Expressed in both skeletal and cardiac muscle.
Function	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 r
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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

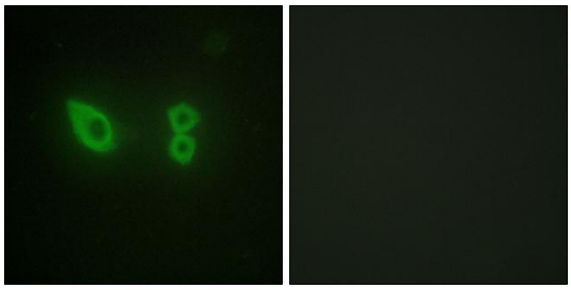
Products Images



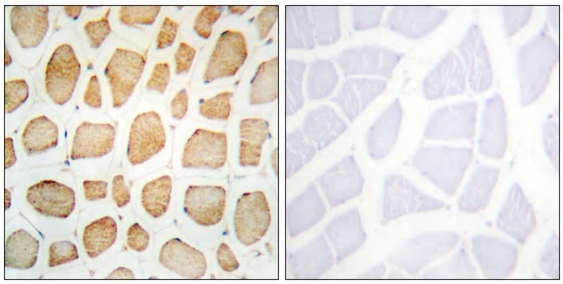
Western Blot analysis of various cells using Actinin-α 2/3 Polyclonal Antibody



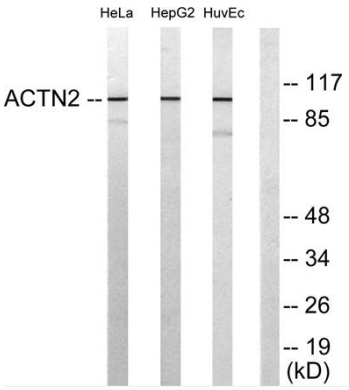
Western Blot analysis of HuvEc cells using Actinin-α2/3 Polyclonal Antibody



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.