



# Actinin- $\alpha$ 1 Polyclonal Antibody

<b>Catalog No</b>	BYab-16922
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;ELISA
<b>Gene Name</b>	ACTN1
<b>Protein Name</b>	Alpha-actinin-1
<b>Immunogen</b>	Synthesized peptide derived from Actinin- $\alpha$ 1 . at AA range: 1-80
<b>Specificity</b>	Actinin- $\alpha$ 1 Polyclonal Antibody detects endogenous levels of Actinin- $\alpha$ 1 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	$\geq 90\%$
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	ACTN1; Alpha-actinin-1; Alpha-actinin cytoskeletal isoform; F-actin cross-linking protein; Non-muscle alpha-actinin-1
<b>Observed Band</b>	103kD
<b>Cell Pathway</b>	Cytoplasm, cytoskeleton . Cytoplasm, myofibril, sarcomere, Z line . Cell membrane . Cell junction . Cell projection, ruffle . Colocalizes with MYOZ2 and PPP3CA at the Z-line of heart and skeletal muscle. Colocalizes with PSD in membrane ruffles and central reticular structures. .
<b>Tissue Specificity</b>	Colon,Epithelium,Hepatocyte,Neuroblastoma,Placenta,Platelet,Skin,Tumor of tongue,
<b>Function</b>	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 MYOZ2 and PPP3CA at the Z-line of heart and skeletal muscle.,subunit:Homodimer; antiparallel. Interacts with DDN, MYOZ2, PDLIM2, TTID and LPP.,

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### 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 nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],

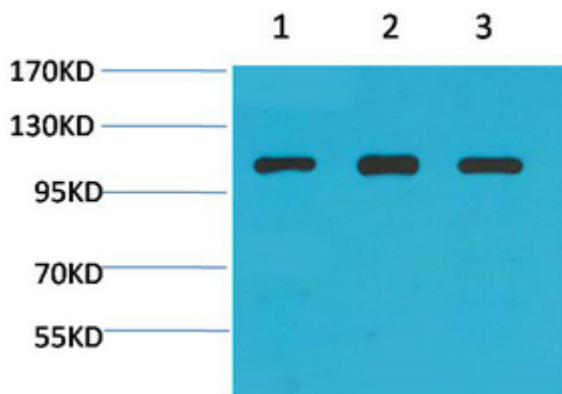
### matters needing attention

Avoid repeated freezing and thawing!

### Usage suggestions

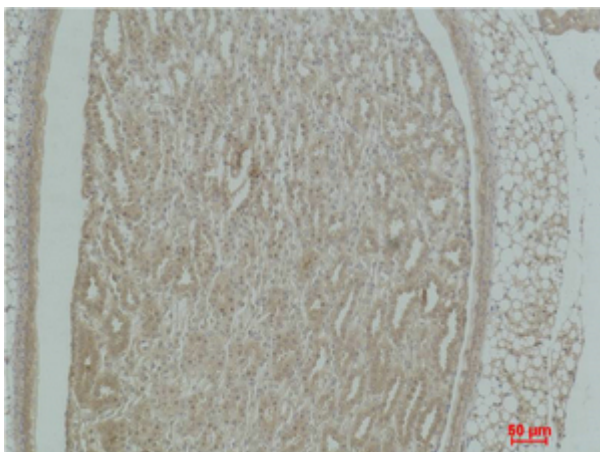
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



Western blot analysis of 1) 3T3, 2) PC12, 3) Rat Heart Tissue using Actinin- $\alpha$ 1 Polyclonal Antibody.

Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded Mouse Kidney Tissue using Actinin- $\alpha$ 1 Polyclonal Antibody.

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