



Actinin- α 1 Polyclonal Antibody

Catalog No	YP-Ab-16922
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;ELISA
Gene Name	ACTN1
Immunogen	Synthesized peptide derived from Actinin- α 1 . at AA range: 1-80
Specificity	Actinin- α 1 Polyclonal Antibody detects endogenous levels of Actinin- α 1 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. ELISA: 1/40000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	actinin 1 smooth muscle;Actinin alpha 1;actinin;alpha 1;ACTN 1;Actn1; ACTN1_HUMAN;Alpha Actinin 1;Alpha actinin cytoskeletal isoform;Alpha-actinin cytoskeletal isoform;Alpha-actinin-1;BDPLT15;F actin cross linking protein;F-actin cross-linking protein;FLJ4884;FLJ54432;Non muscle alpha actinin 1;Non-muscle alpha-actinin-1;Actinin- α 1
Observed Band	103kD
Calculated Molecular Weight	103kD
Cell Pathway	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. .
Tissue Specificity	Colon,Epithelium,Hepatocyte,Neuroblastoma,Placenta,Platelet,Skin,Tumor of tongue,
Function	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.,

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],

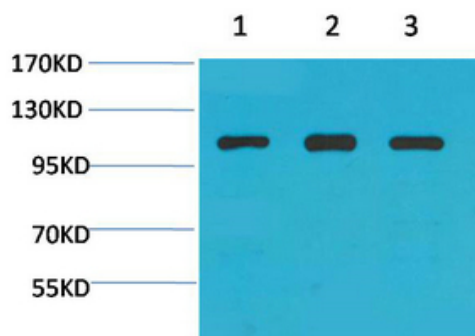
matters needing attention

Avoid repeated freezing and thawing!

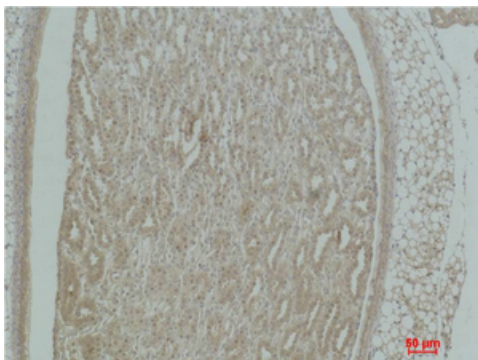
Usage suggestions

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- α 1 Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded Mouse Kidney Tissue using Actinin- α 1 Polyclonal Antibody.