



α-actinin Monoclonal Antibody(4A12)

Catalog No	YP-Ab-16856
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB;IHC;IF
Gene Name	ACTN1
Immunogen	Recombinant Protein of α-actinin of ACTN1
Specificity	α-actinin Monoclonal Antibody(4A12) detects endogenous levels of ACTN1
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Dilution	IHC-p 1:100-500;IF/ICC 1:100-500, WB 1:500-2000
Concentration	1 mg/ml
Purity	≥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-α1
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],

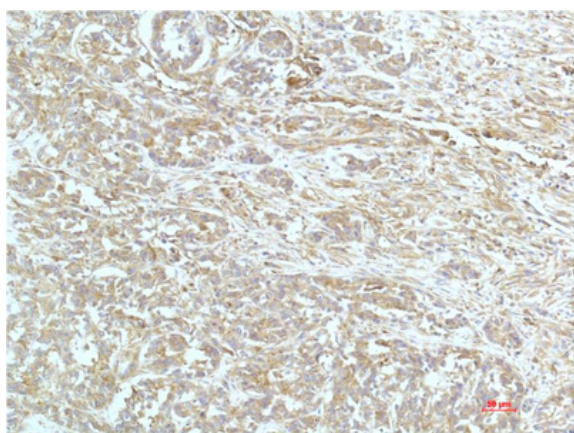
matters needing attention

Avoid repeated freezing and thawing!

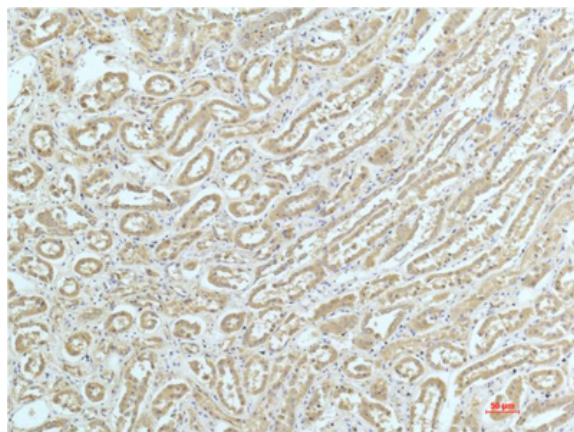
Usage suggestions

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

Products Images



Immunohistochemical analysis of paraffin-embedded Human Breast Carcinoma Tissue using a-actinin Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Human Kidney Tissue using a-actinin Mouse mAb diluted at 1:200.