



# Actinin- $\alpha$ 1 Rabbit mAb

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| Catalog No                  | YP-rAb-17296                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Isotype                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Reactivity                  | Human,Mouse,Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Applications                | WB,IHC,IF,IP,ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Gene Name                   | ACTN1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protein Name                | Alpha-actinin-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Purification Process        | Protein A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Specificity                 | Endogenous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Formulation                 | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Source                      | Monoclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Dilution                    | IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0                                                                                                                                                                                                                                                                                                                                                                                                |
| Concentration               | 0.5 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Purity                      | $\geq 90\%$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Storage Stability           | -15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Synonyms                    | Actinin- $\alpha$ 1;Alpha-actinin-1;ACTN1 ; Alpha-actinin-1 ; Alpha-actinin cytoskeletal isoform ; F-actin cross-linking protein ; Non-muscle alpha-actinin-1;ACTN1                                                                                                                                                                                                                                                                                                                                                                                         |
| 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                    | 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

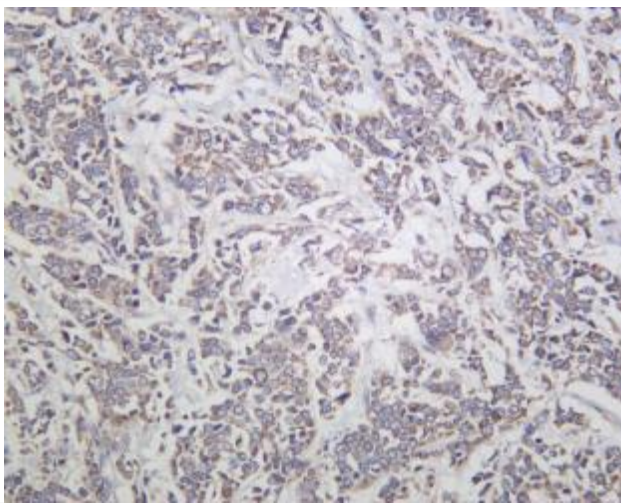
Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform 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

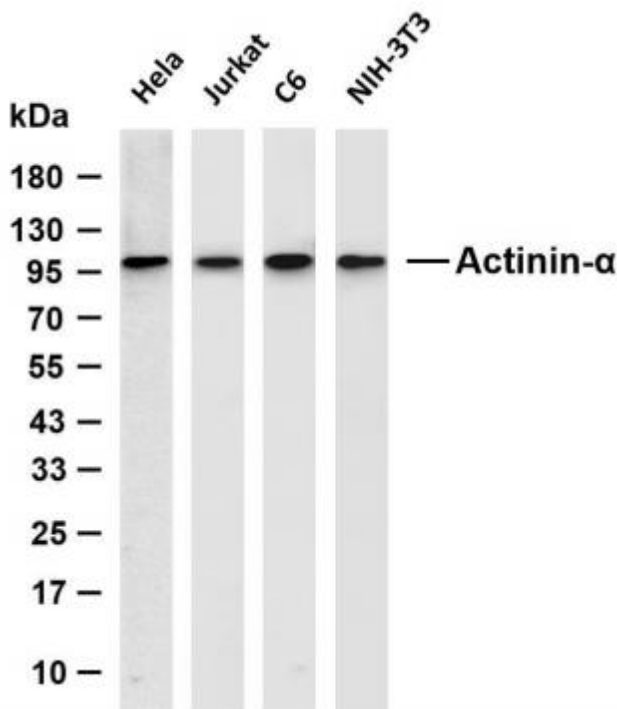
Avoid repeated freezing and thawing!

## Usage suggestions

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



Human breast was stained with anti-Actinin-  $\alpha$  1 Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Actinin-  $\alpha$  1 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: Jurkat Lane 3: C6 Lane 4: NIH-3T3. Predicted band size: 103kDa Observed band size: 103kDa

