

**Actinin- $\alpha$ 1/2/3/4 Polyclonal Antibody**

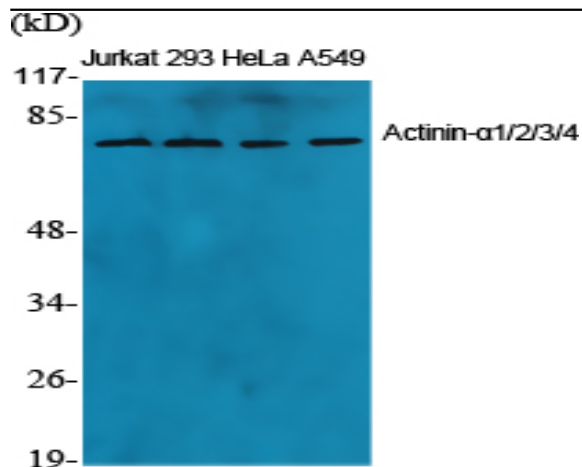
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|------------------------------|--|
| <b>Catalog No :</b>          | YT0101   |
| <b>Reactivity :</b>          | Human;Mouse;Rat  |
| <b>Applications :</b>        | WB;IHC;IF;ELISA  |
| <b>Target :</b>              | Actinin- $\alpha$ 1/2/3/4  |
| <b>Fields :</b>              | >>Focal adhesion;>>Adherens junction;>>Tight junction;>>Leukocyte transendothelial migration;>>Regulation of actin cytoskeleton;>>Shigellosis;>>Amoebiasis;>>Viral carcinogenesis;>>Systemic lupus erythematosus |
| <b>Gene Name :</b>           | ACTN1/2/3/4  |
| <b>Protein Name :</b>        | Alpha-actinin-1/2/3/4  |
| <b>Human Gene Id :</b>       | 87/88/89/81  |
| <b>Human Swiss Prot No :</b> | P12814/P35609/Q08043/O43707  |
| <b>Mouse Gene Id :</b>       | 109711/11472/11474/60595   |
| <b>Rat Gene Id :</b>         | 81634/63836  |
| <b>Rat Swiss Prot No :</b>   | Q9Z1P2/Q9QXQ0  |
| <b>Immunogen :</b>           | The antiserum was produced against synthesized peptide derived from human ACTN1/2/3/4. AA range:21-70  |
| <b>Specificity :</b>         | Actinin- $\alpha$ 1/2/3/4 Polyclonal Antibody detects endogenous levels of Actinin- $\alpha$ 1/2/3/4 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>Dilution :</b>            | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000.. IF 1:50-200   |

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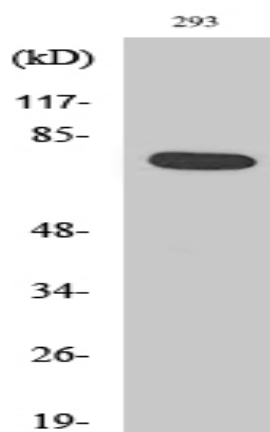
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| <b>Purification :</b>         | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.  |
| <b>Concentration :</b>        | 1 mg/ml  |
| <b>Storage Stability :</b>    | -15°C to -25°C/1 year(Do not lower than -25°C)   |
| <b>Observed Band :</b>        | 75kD   |
| <b>Cell Pathway :</b>         | Focal adhesion;Adherens_Junction;Adherens_Junction;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Systemic lupus erythematosus;Arrhythmogenic right ventricular cardiomyopathy (A   |
| <b>Background :</b>           | 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], |
| <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.,   |
| <b>Subcellular Location :</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>Expression :</b>           | Colon,Epithelium,Hepatocyte,Neuroblastoma,Placenta,Platelet,Skin,Tumor of tongue,  |

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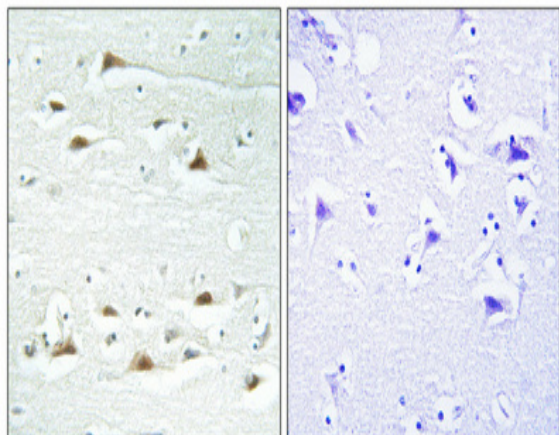
## Products Images



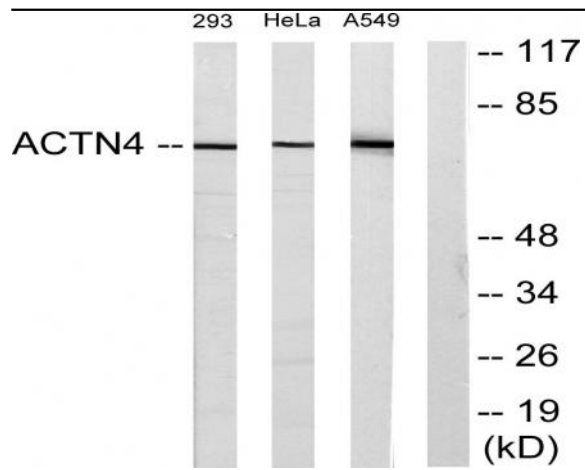
Western Blot analysis of various cells using Actinin- $\alpha$ 1/2/3/4 Polyclonal Antibody diluted at 1:1000



Western Blot analysis of A549 cells using Actinin- $\alpha$ 1/2/3/4 Polyclonal Antibody diluted at 1:1000



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



Western blot analysis of lysates from 293, HeLa, and A549 cells, using ACTN1/2/3/4 Antibody. The lane on the right is blocked with the synthesized peptide.