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Rabbit Anti-alpha Actinin 4 (Loading Control) antibody

SL1741R

Product Name:	alpha Actinin 4 (Loading Control)
Chinese Name:	α-辅肌动蛋白4(内参)抗体
Alias:	actinin 4; Actinin alpha 4; Actinin alpha-4; Alpha-actinin-4; actinin4; ACTN 4; ACTN4; ACTN4_HUMAN; DKFZp686K23158; F actin cross linking protein; F-actin cross-linking protein; Focal segmental glomerulosclerosis 1; FSGS 1; FSGS; FSGS1; Non muscle alpha actinin 4; Non-muscle alpha-actinin 4.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	105kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Actinin alpha 4:811-911/911
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Loading Control

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, alpha actinin isoform which is concentrated in the cytoplasm, and thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis. [provided by RefSeq, Jul 2008].

Function:
F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein. Probably involved in vesicular trafficking via its association with the CART complex. The CART complex is necessary for efficient transferrin receptor recycling but not for EGFR degradation.

Subunit:
Homodimer; antiparallel. Binds TRIM3 at the N-terminus. Identified in a complex with CASK, IQGAP1, MAGI2, NPHS1, SPTAN1 and SPTBN1. Identified in a mRNP granule complex, at least composed of ACTB, ACTN4, DHX9, ERG, HNRNPA1, HNRNPA2B1, HNRNPAB, HNRNPD, HNRNPL, HNRNPR, HNRNPU, HSPA1, HSPA8, IGF2BP1, ILF2, ILF3, NCBP1, NCL, PABPC1, PABPC4, PABPN1, RPLP0, RPS3, RPS3A, RPS4X, RPS8, RPS9, SYNCRIP, TROVE2, YBX1 and untranslated mRNAs. Component of the CART complex, at least composed of ACTN4, HGS/HRS, MYO5B and TRIM3. Interacts with BAIAP1 and PDLIM2.

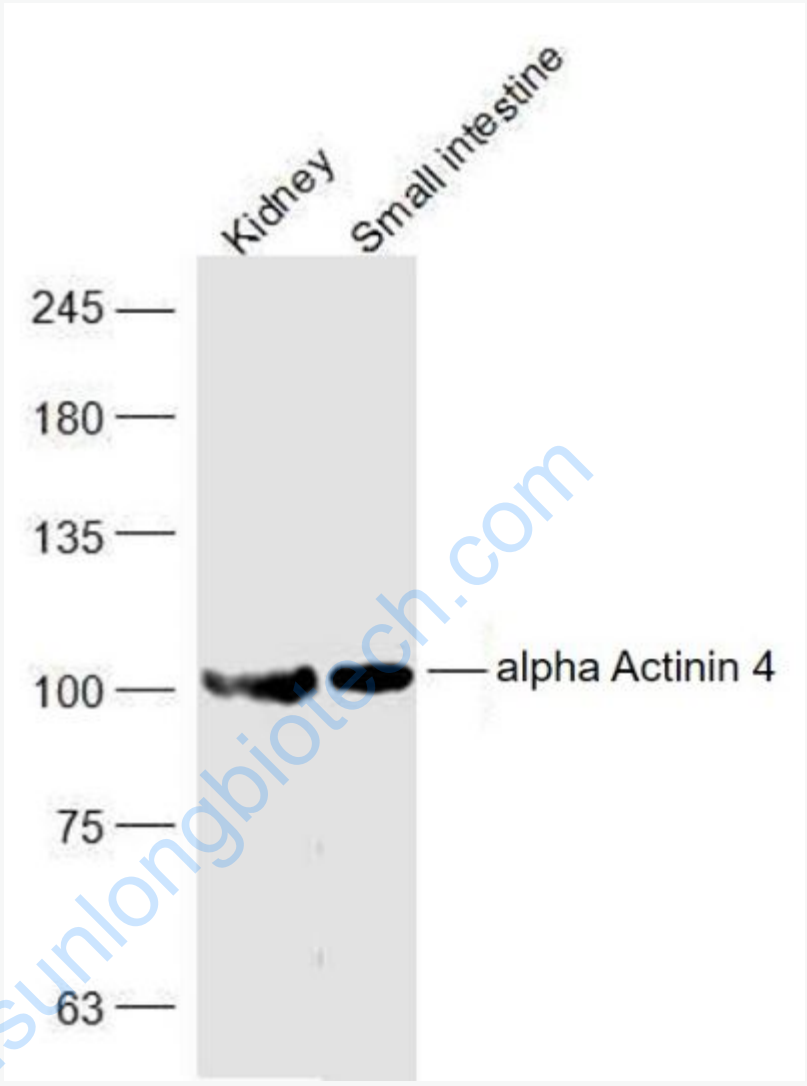
Subcellular Location:
Nucleus. Cytoplasm. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Colocalizes with actin stress fibers. Nuclear translocation can be induced by the PI3 kinase inhibitor wortmannin or by cytochalasin D. Exclusively localized in the nucleus in a limited number of cell lines (breast cancer cell line MCF-7, oral floor cancer IMC-2, and bladder cancer KU-7).

Tissue Specificity:
Widely expressed.

DISEASE:
Defects in ACTN4 are the cause of focal segmental glomerulosclerosis type 1 (FSGS1) [MIM:603278]. A renal pathology defined by the presence of segmental sclerosis in glomeruli and resulting in proteinuria, reduced glomerular filtration rate and edema. Renal insufficiency often progresses to end-stage renal disease, a highly morbid state requiring either dialysis therapy or kidney transplantation.

	Similarity: Belongs to the alpha-actinin family. Contains 1 actin-binding domain. Contains 2 CH (calponin-homology) domains. Contains 2 EF-hand domains. Contains 4 spectrin repeats. **SWISS:** O43707 **Gene ID:** 81 **Database links:** Entrez Gene: 81Human Entrez Gene: 60595Mouse Entrez Gene: 63836Rat Omim: 604638Human SwissProt: O43707Human SwissProt: P57780Mouse SwissProt: Q9QXQ0Rat Unigene: 270291Human Unigene: 81144Mouse Unigene: 15777Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. α-Actinin-4;

Picture:



Sample:

Kidney (Rat) Lysate at 40 ug

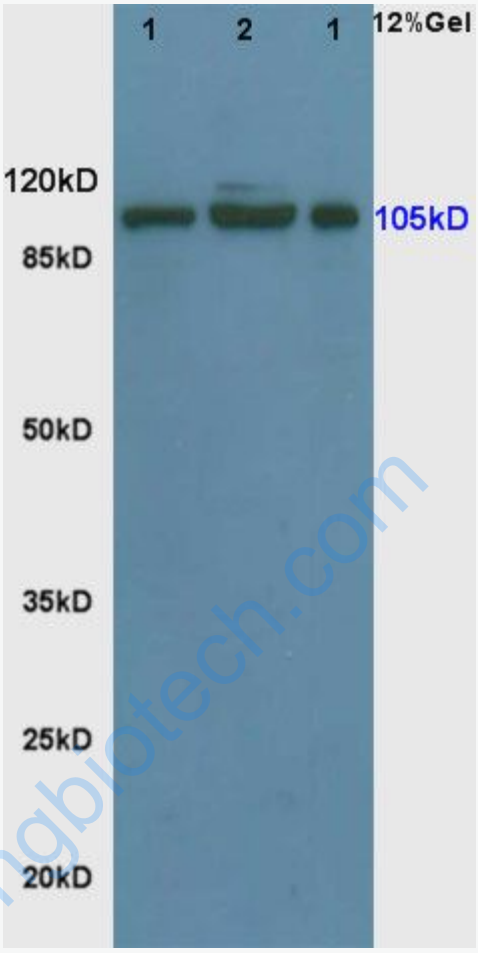
Small intestine (Mouse) Lysate at 40 ug

Primary: Anti-alpha Actinin 4-Loading Control (SL1741R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 105 kD

Observed band size: 105 kD



Sample:

Lane1: Kidney(Rat) Lysate at 30 ug

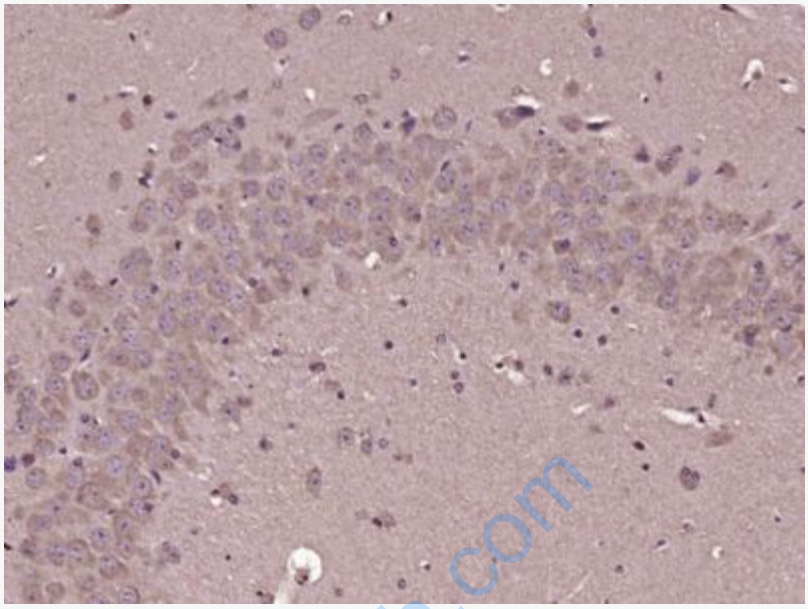
Lane2: Brain(Rat)Lysate at 30 ug

Primary: Anti-alpha-Actinin-4 (SL1741R) at 1:200 dilution

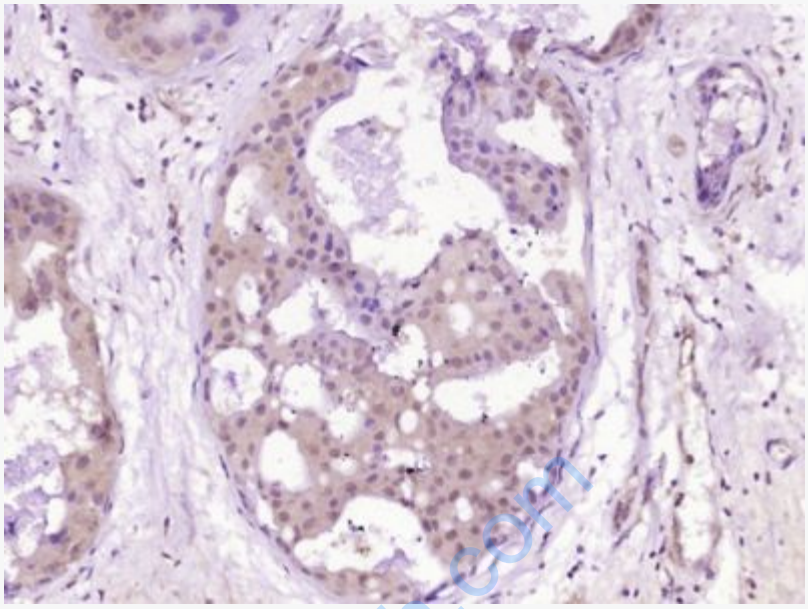
Secondary: HRP conjugated Goat-Anti-Rabbit IgG(bse-0295G) at 1: 3000 dilution

Predicted band size : 105kD

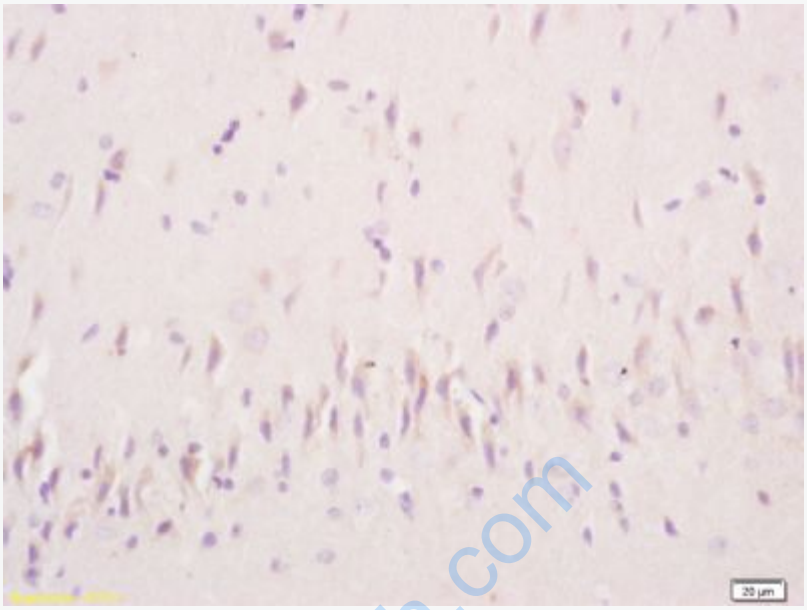
Observed band size : 105kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (alpha Actinin 4-Loading Control) Polyclonal Antibody, Unconjugated (SL1741R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human breast carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (alpha Actinin 4-Loading Control) Polyclonal Antibody, Unconjugated (SL1741R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-alpha-Actinin-4 Polyclonal Antibody, Unconjugated(SL1741R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining