

# **KO Validated Anti-Actinin Alpha 4 Rabbit Monoclonal Antibody**

Rabbit monoclonal antibody Catalog # AGI2407

### **Specification**

#### KO Validated Anti-Actinin Alpha 4 Rabbit Monoclonal Antibody - Product Information

Application WB, FC Primary Accession 043707

Reactivity Rat, Human, Mouse

Clonality Monoclonal Isotype Rabbit IgG

Calculated MW Predicted, 105 kDa, observed, 105 kDa

KDa

Gene Name ACTN4

Aliases ACTN4; Actinin Alpha 4; Focal Segmental

Glomerulosclerosis 1; Non-Muscle

Alpha-Actinin 4; Alpha-Actinin-4; FSGS1;

**ACTININ-4; FSGS** 

Immunogen A synthesized peptide derived from human

alpha Actinin 4

### KO Validated Anti-Actinin Alpha 4 Rabbit Monoclonal Antibody - Additional Information

Gene ID 81

**Other Names** 

Alpha-actinin-4, Non-muscle alpha-actinin 4, ACTN4 (<a

href="http://www.genenames.org/cgi-bin/gene symbol report?hgnc id=166"

target=" blank">HGNC:166</a>)

#### KO Validated Anti-Actinin Alpha 4 Rabbit Monoclonal Antibody - Protein Information

## Name ACTN4 (HGNC:166)

### **Function**

F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein (Probable). 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 (PubMed:<a href="http://www.uniprot.org/citations/15772161" target="\_blank">15772161</a>(a>). Involved in tight junction assembly in epithelial cells probably through interaction with MICALL2. Links MICALL2 to the actin cytoskeleton and recruits it to the tight junctions (By similarity). May also function as a transcriptional coactivator, stimulating transcription mediated by the nuclear hormone receptors PPARG and RARA (PubMed:<a href="http://www.uniprot.org/citations/22351778" target="\_blank">22351778</a>(a>). Association with IGSF8 regulates the immune synapse formation and is required for efficient T-cell activation (PubMed:<a href="http://www.uniprot.org/citations/22689882" target="\_blank">22689882</a>).

#### **Cellular Location**

Nucleus. Cytoplasm. Cell junction {ECO:0000250|UniProtKB:P57780}. Cytoplasm, cytoskeleton,



stress fiber. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P57780}. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Expressed in the perinuclear rim and manchette structure in early elongating spermatids during spermiogenesis (By similarity). 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). {ECO:0000250|UniProtKB:P57780, ECO:0000269|PubMed:17289661, ECO:0000269|PubMed:9508771}

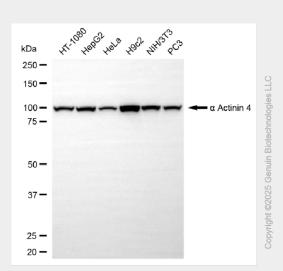
**Tissue Location** Widely expressed..

## KO Validated Anti-Actinin Alpha 4 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

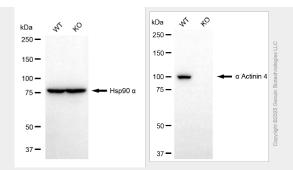
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### KO Validated Anti-Actinin Alpha 4 Rabbit Monoclonal Antibody - Images

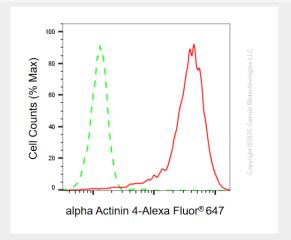


Western blotting analysis using anti-alpha Actinin 4 antibody (Cat#71140). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-alpha Actinin 4 antibody (Cat#71140, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using NaQ $^{\text{TM}}$  ECL Substrate Kit (Cat#716).





Western blotting analysis using anti-alpha actinin 4 antibody (Cat#71140). Alpha actinin 4 expression in wild type (WT) and alpha actinin 4 (ACTN4) knockout (KO) 293T cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-alpha actinin 4 antibody (Cat#71140, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using NaQ<sup>TM</sup> ECL Substrate Kit (Cat#716).



Flow cytometric analysis of alpha Actinin 4 expression in HepG2 cells using anti-alpha Actinin 4 antibody (Cat# 71140, 1:2,000). Green, isotype control; red, alpha Actinin 4.