

Datasheet for ABIN2745506

**anti-alpha Actinin 4 antibody (C-Term, N-Term)****2** Images[Go to Product page](#)

## Overview

|                      |   |
|----------------------|---|
| Quantity:            | 50 µg   |
| Target:              | alpha Actinin 4 (ACTN4)   |
| Binding Specificity: | AA 27-38, C-Term, N-Term  |
| Reactivity:          | Human, Mouse, Rat, Pig, Hamster   |
| Host:                | Rabbit  |
| Clonality:           | Polyclonal  |
| Conjugate:           | This alpha Actinin 4 antibody is un-conjugated                              |
| Application:         | Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP) |

## Product Details

|                             |  |
|-----------------------------|--|
| Immunogen:                  | Synthetic peptide corresponding to aa 27-38 of the N-terminal alpha-Actinin-4, coupled via a C-terminal cysteine residue to KLH.   |
| Specificity:                | Recognizes human, mouse, rat, pig and Chinese hamster actinin-4.   |
| Cross-Reactivity:           | Hamster, Human, Mouse (Murine), Pig (Porcine), Rat (Rattus)  |
| Cross-Reactivity (Details): | Does not cross-react with actinin-1, -2 or -3.   |
| Purification:               | Antigen affinity purified.   |
| Components:                 | Contains Positive Control: Human platelet protein (Prod. No. AG-35T-0001), 500 µg supplied at 5mg/ml in SDS sample buffer. Use 5µl (25µg) per lane for Western blotting. |

## Target Details

|                   |  |
|-------------------|--|
| Target:           | alpha Actinin 4 (ACTN4)  |
| Alternative Name: | alpha-Actinin-4 ( <a href="#">ACTN4 Products</a> )   |
| Background:       | <p>Alpha-Actinin 4 is an actin-bundling protein of ~100 kDa that is associated with cell motility, endocytosis and cancer invasion. The alpha-actinin family comprises two non-muscle isoforms (alpha-actinin-1 and -4) and two skeletal muscle isoforms (alpha-actinin-2 and -3), with alpha-actinin-2 being also expressed in cardiac muscle. While alpha-actinin-4 is almost ubiquitously expressed, particularly high concentrations are found in glomeruli. On the subcellular level it is associated with actin stress fibers, but in certain cells it also localizes to the nucleus. Mutations in the alpha-actinin-4 gene cause an autosomal-dominant form of familial focal segmental glomerulosclerosis (FSGS), which is thought to result from a defect in glomerular podocyte function. A point mutation in the alpha-actinin-4 gene was found to generate an antigenic peptide that is recognized by autologous cytolytic T lymphocytes (CTL) on a human lung carcinoma. alpha-Actinin-4 interacts with a variety of proteins, including the ring finger protein BERP, the PDZ-LIM protein CLP-36, the hemidesmosomal and cell-cell contact protein BP180, and the tight junction protein MAGI-1. Moreover, alpha-actinin-4 forms a ternary complex with Ca<sup>2+</sup>/Calmodulin-dependent protein kinase II and densin-180, a protein of postsynaptic densities in CNS neurons. Ca<sup>2+</sup>-dependent association of alpha-actinin-4 with E3KARP is required for Ca<sup>2+</sup>-dependent inhibition of the Na<sup>+</sup>/H<sup>+</sup> exchanger 3 (NHE3).</p> |
| UniProt:          | <a href="#">O43707</a>   |
| Pathways:         | <a href="#">Proton Transport</a>   |

## Application Details

|                    |   |
|--------------------|---|
| Application Notes: | Use 5 µL (25 µg) per lane for Western blotting. |
| Restrictions:      | For Research Use only                           |

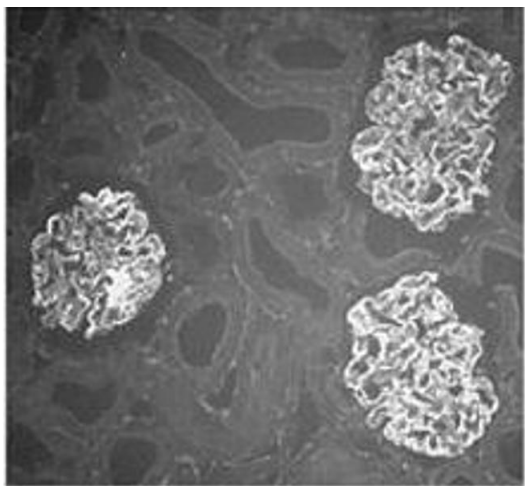
## Handling

|                    |  |
|--------------------|--|
| Format:            | Liquid   |
| Concentration:     | Lot specific   |
| Buffer:            | In PBS containing 1 mg/mL BSA and 0.01 % sodium azide.   |
| Preservative:      | Sodium azide   |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |

## Handling

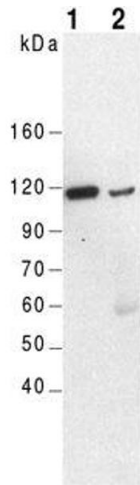
|                  |  |
|------------------|--|
| Storage:         | 4 °C,-20 °C  |
| Storage Comment: | Short Term Storage: +4°C<br>Long Term Storage: -20°C<br>Stable for at least 1 year after receipt when stored at -20°C. |
| Expiry Date:     | 12 months  |

## Images



### Immunocytochemistry

**Image 1.** Immunocytochemical analysis of Actinin-4 distribution in rat kidney using anti- $\alpha$ -Actinin-4, pAb (IG-701). Glomeruli are strongly labeled (frozen sections of formaldehyde perfused tissue (dilution 1:1600)).



### Western Blotting

**Image 2.** Western Blot of mouse kidney (lane 1) and brain (lane 2) using anti- $\alpha$ -Actinin-4, pAb (IG-701). Tissue: 25 $\mu$ g each; Antibody (dilution 1:2500) for 2h at RT; Detection method: ECL.