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Datasheet for ABIN2745506

anti-alpha Actinin 4 antibody (C-Term, N-Term)

2 Images

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 (ACTN4 Products)
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 Ca²⁺/Calmodulin-dependent protein kinase II and densin-180, a protein of postsynaptic densities in CNS neurons. Ca²⁺-dependent association of alpha-actinin-4 with E3KARP is required for Ca²⁺-dependent inhibition of the Na⁺/H⁺ exchanger 3 (NHE3).</p>
UniProt:	O43707
Pathways:	Proton Transport

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.

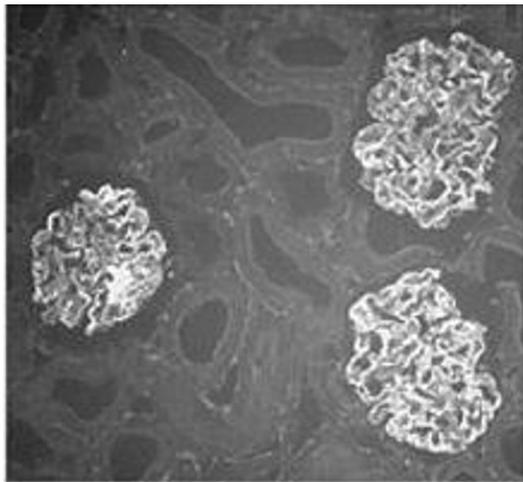
Handling

Storage: 4 °C,-20 °C

Storage Comment: Short Term Storage: +4°C
Long Term Storage: -20°C
Stable for at least 1 year after receipt when stored at -20°C.

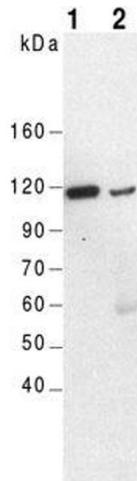
Expiry Date: 12 months

Images



Immunocytochemistry

Image 1. Immunocytochemical analysis of Actinin-4 distribution in rat kidney using anti- α -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- α -Actinin-4, pAb (IG-701). Tissue: 25 μ g each; Antibody (dilution 1:2500) for 2h at RT; Detection method: ECL.