

## **Product datasheet for TA346385**

# alpha Actinin 4 (ACTN4) Rabbit Polyclonal Antibody

### **Product data:**

**Product Type:** Primary Antibodies

Applications: WB

Recommended Dilution: WB

Reactivity: Human

Host: Rabbit

**Isotype:** IgG

Clonality: Polyclonal

**Immunogen:** The immunogen for anti-ACTN4 antibody: synthetic peptide directed towards the C terminal

of human ACTN4. Synthetic peptide located within the following region: DVENDRQGEAEFNRIMSLVDPNHSGLVTFQAFIDFMSRETTDTDTADQVI

Formulation: Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2%

sucrose.

Note that this product is shipped as lyophilized powder to China customers.

**Purification:** Affinity Purified

Conjugation: Unconjugated

**Store** at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

**Predicted Protein Size:** 105 kDa

Gene Name: actinin alpha 4

Database Link: NP 004915

Entrez Gene 81 Human

<u>O43707</u>



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Background:

Alpha actinins belong to the spectrin superfamily which is 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. ACTN4 is a nonmuscle, alpha actinin isoform which is concentrated in the cytoplasm, and thought to be involved in metastatic processes. Mutations in its gene have been associated with focal and segmental glomerulosclerosis. 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.

Synonyms: ACTININ-4; FSGS; FSGS1

Note: Immunogen Sequence Homology: Human: 100%; Dog: 93%; Pig: 93%; Rat: 93%; Mouse: 93%;

Bovine: 93%; Guinea pig: 93%; Zebrafish: 79%

**Protein Families:** Druggable Genome

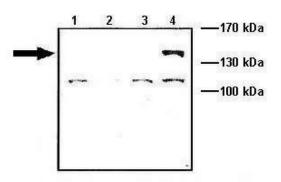
**Protein Pathways:** Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion,

Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus

erythematosus, Tight junction

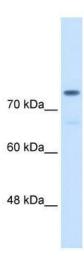
## **Product images:**

#### ACTN4



Lanes: Lane 1: 10 ug ACTN1-GFP transfected COS-7 lysate; Lane 2: 10 ug ACTN2-GFP transfected COS-7 lysate; Lane 3: 10 ug ACTN3-GFP transfected COS-7 lysate; Lane 4: 10 ug ACTN4-GFP transfected COS-7 lysate; Primary Antibody Dilution: 1: 1000; Secondary Antibody: Anti-rabbit HRP; Secondary Antibody Dilution: 1: 5000; Gene Name: ACTN4; Submitted by: Johannes W. Hell, University of California;





WB Suggested Anti-ACTN4 Antibody Titration: 0.2-1 ug/ml; Positive Control: HCT116 cell lysate; ACTN4 is supported by BioGPS gene expression data to be expressed in HCT116