

# **Product datasheet for TA346384**

## alpha Actinin 4 (ACTN4) Rabbit Polyclonal Antibody

#### **Product data:**

**Product Type:** Primary Antibodies

Applications:IHC, WBRecommended Dilution:IHC, WBReactivity:HumanHost:RabbitIsotype:IgG

Clonality: Polyclonal

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

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

LIHRHRPELIEYDKLRKDDPVTNLNNAFEVAEKYLDIPKMLDAEDIVNTA

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: Protein A Purified

Conjugation: Unconjugated

**Storage:** Store at -20°C as received.

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

**Predicted Protein Size:** 100 kDa

**Gene Name:** actinin alpha 4

Database Link: NP 004915

Entrez Gene 81 Human

O43707



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Background:

Alpha actinins belong to the spectrin 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. 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: Dog: 100%; Pig: 100%; Rat: 100%; Horse: 100%; Human:

100%; Mouse: 100%; Bovine: 100%; Rabbit: 100%; Guinea pig: 100%; Zebrafish: 93%

**Protein Families:** Druggable Genome

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

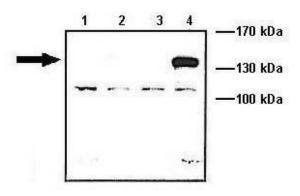
Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus

erythematosus, Tight junction

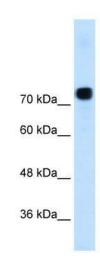


## **Product images:**

### ACTN4

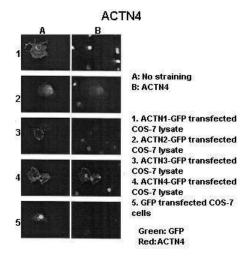


Lanes: Lane 1: 10 ug ACTN1-GFP transfected COS-7 lysate; Lane 2: 10 ug ACTN2-GFP transfected COS-7 lysate; Lane 3: 10 ug ACTN3-GFP transfected COS-7 lysate; Lane 4: 10 ug ACTN4-GFP transfected COS-7 lysate; Primary Antibody Dilution: 1: 1000; Secondary Antibody: Anti-rabbit HRP; Secondary Antibody Dilution: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



WB Suggested Anti-ACTN4 Antibody Titration: 0.625 ug/ml; Positive Control: HCT116 cell lysate; ACTN4 is supported by BioGPS gene expression data to be expressed in HCT116





Sample Type: ACTNX-GFP transfected COS-7 cells Primary Antibody Dilution: 1: 1000; Secondary Antibody: Anti-rabbit-Alexa-Fluor 568; Secondary Antibody: ilution: 1: 100; Color/Signal Descriptions: Green: GFP Red: ACTN4; Gene Name: ACTN4; Submitted by: Johannes W. Hell, Ph.D., Professor, Department of Pharmacology, University of California, Room 2419D Tupper Hall, Davis, CA 95616-5270, Phone: (530) 752 6540, Lab: (530) 752 7551, FAX: (530) 752 7710