

Datasheet for ABIN2787669  
**anti-ACTN1 antibody (N-Term)**

## 3 Images

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## Overview

|                      |   |
|----------------------|---|
| Quantity:            | 100 µL  |
| Target:              | ACTN1   |
| Binding Specificity: | N-Term  |
| Reactivity:          | Human, Mouse, Rat, Rabbit, Cow, Guinea Pig, Horse, Zebrafish (Danio rerio), Dog |
| Host:                | Rabbit  |
| Clonality:           | Polyclonal  |
| Conjugate:           | This ACTN1 antibody is un-conjugated  |
| Application:         | Western Blotting (WB), Immunohistochemistry (IHC)                               |

## Product Details

|                       |   |
|-----------------------|---|
| Immunogen:            | The immunogen is a synthetic peptide directed towards the N terminal region of human ACTN1                                      |
| Sequence:             | DHYDSQQTND YMQPEEDWDR DLLLDPAWEK QQRKTFTAWC NSHLRKAGTQ  |
| Predicted Reactivity: | Cow: 100%, Dog: 100%, Guinea Pig: 100%, Horse: 75%, Human: 100%, Mouse: 100%, Rabbit: 100%, Rat: 100%, Zebrafish: 85%           |
| Characteristics:      | This is a rabbit polyclonal antibody against ACTN1. It was validated on Western Blot using a cell lysate as a positive control. |
| Purification:         | Affinity Purified   |

## Target Details

|         |       |
|---------|-------|
| Target: | ACTN1 |
|---------|-------|

## Target Details

Alternative Name: ACTN1 ([ACTN1 Products](#))

**Background:** 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. 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, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications.

Alias Symbols: FLJ40884

Protein Interaction Partner: SPERT, KCTD6, MICALL2, MYOZ2, EPM2AIP1, OAS1, ACTN3, ACTN1, SUMO2, SUMO3, HSF5, UBC, MDM2, EZH2, BMI1, ACTN4, CDAN1, DCAF8, SF3A3, STAM2, SRP19, UBD, IGSF8, ICAM1, CD81, ERBB2IP, SVIL, PDHX, RPS27, PSMA1, KPNA2, HCVgp1, PIAS4, GIT2, NUMBL, HSP90AB1, HSP90

Protein Size: 892

Molecular Weight: 103 kDa

Gene ID: 87

NCBI Accession: [NM\\_001102](#), [NP\\_001093](#)

UniProt: [P12814](#)

Pathways: [Cell-Cell Junction Organization](#)

## Application Details

Application Notes: Optimal working dilutions should be determined experimentally by the investigator.

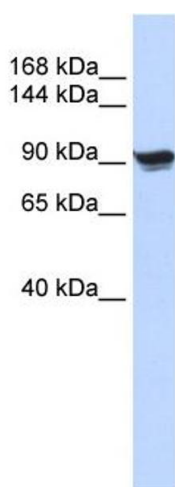
Comment: Antigen size: 892 AA

Restrictions: For Research Use only

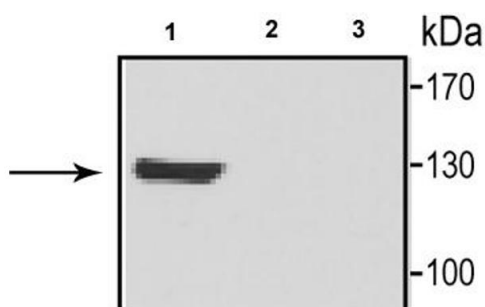
## Handling

|                    |   |
|--------------------|---|
| Format:            | Liquid  |
| Concentration:     | Lot specific  |
| Buffer:            | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.                                     |
| 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 Advice:   | Avoid repeated freeze-thaw cycles.  |
| Storage:           | -20 °C  |
| Storage Comment:   | For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles. |

## Images



**ACTN1**



See Immunoblot 2 Data and Customer Feedback tab for more information.

### Western Blotting

#### Image 1. WB Suggested Anti-ACTN1 Antibody Titration:

0.2-1 ug/ml

**ELISA Titer:** 1:312500

**Positive Control:** 293T cell lysate

### Western Blotting

**Image 2. Sample Type:** 1.-4. rACTN1-GFP + HEK293 (50ug)

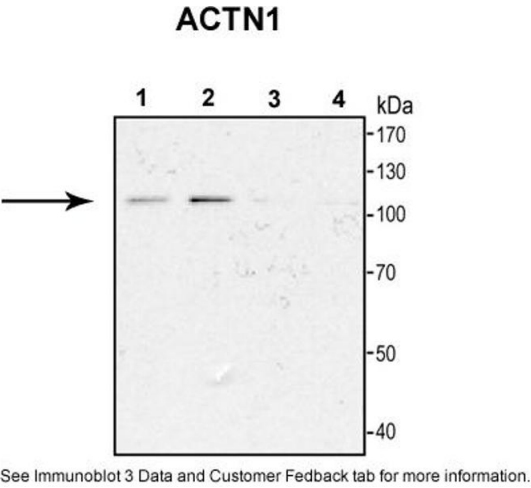
**Primary Dilution:** 1:1000-1:2000

**Secondary Antibody:** HRP conjugated goat anti-rabbit

**Secondary Dilution:** 1:20,000

**Image Submitted By:** Magdalena Kalinowska

Albert Einstein College of Medicine



**Western Blotting**

**Image 3. Sample Type:** 1.-2.Rat cortical neurons ctr siRNA (30ug)

2. Rat cortical neurons ACTN1 siRNA (30ug)

**Primary Dilution:** 1:1000-1:2000

**Secondary Antibody:** HRP conjugated goat anti-rabbit

**Secondary Dilution:** 1:20,000

**Image Submitted By:** Magdalena Kalinowska  
Albert Einstein College of Medicine