

## Basic Information

|                    |   |  |
|--------------------|---|--|
| Product Name       | Anti-ACTN2 Antibody   |  |
| Gene Name          | ACTN2   |  |
| Source             | Rabbit  |  |
| Isotype            | IgG   |  |
| Species Reactivity | human, mouse, rat   |  |
| Tested Application | WB, IHC, FCM, ELISA   |  |
| Contents           | 500 ug/ml antibody with PBS , 0.02% NaN <sub>3</sub> , 1 mg BSA and 50% glycerol.   |  |
| Immunogen          | E.coli-derived human ACTN2 recombinant protein (Position: E567-E696).   |  |
| concentration      | 500 ug/ml   |  |
| Purification       | Immunogen affinity purified.  |  |
| Observed MW        | 103KD   |  |
| Dilution Ratios    | Western blot(WB): 1:500-2000<br>Immunohistochemistry in paraffin section IHC 1:50-400<br>Flow cytometry (FCM): 1-3µg/1x10 <sup>6</sup> cells<br>ELISA: 1:100-1000<br>(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. |  |

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

Alpha-actinin 2 is a protein which in humans is encoded by the ACTN2 gene. 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 muscle-specific, alpha actinin isoform that is expressed in both skeletal and cardiac muscles. Several transcript variants encoding different isoforms have been found for this gene.

## Selected Validation Data

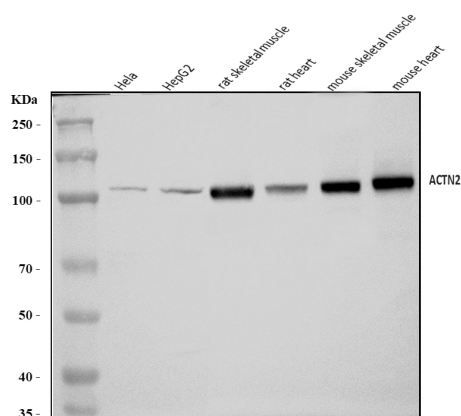


Figure 1. Western blot analysis of anti- ACTN2 antibody (A03673-1).

The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: HELA whole cell lysates,

Lane 2: HEPG2 whole cell lysates,

Lane 3: rat skeletal muscle tissue lysates,

Lane 4: rat heart tissue lysates,

Lane 5: mouse skeletal muscle tissue lysates,

Lane 6: mouse heart tissue lysates.

Use rabbit anti- ACTN2 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for ACTN2 at approximately 103KD. The expected band size for ACTN2 is at 103KD.