

## DESCRIPTION

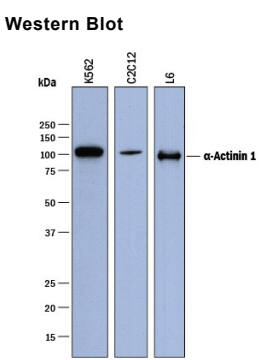
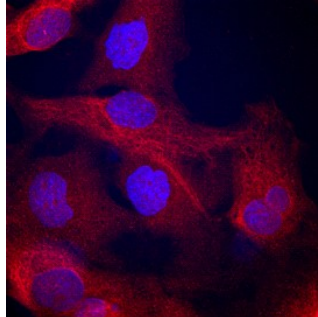
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse and rat $\alpha$ -Actinin 1 in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human $\alpha$ -Actinin 1 Asp272-Thr500 Accession # P12814
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 $\mu$ g/mL	See Below
<b>Immunocytochemistry</b>	5-15 $\mu$ g/mL	See Below

## DATA

Western Blot	Immunocytochemistry
 <p><b>Detection of Human, Mouse, and Rat <math>\alpha</math>-Actinin 1 by Western Blot.</b> Western blot shows lysates of K562 human chronic myelogenous leukemia cell line, C2C12 mouse myoblast cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 0.5 <math>\mu</math>g/mL of Goat Anti-Human/Mouse/Rat <math>\alpha</math>-Actinin 1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8279) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for <math>\alpha</math>-Actinin 1 at approximately 100-105 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	 <p><b><math>\alpha</math>-Actinin 1 in A172 Human Cell Line.</b> <math>\alpha</math>-Actinin 1 was detected in immersion fixed A172 human glioblastoma cell line using Goat Anti-Human/Mouse/Rat <math>\alpha</math>-Actinin 1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8279) at 10 <math>\mu</math>g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Alpha-Actinin 1 (ACTN1) is a member of the spectrin superfamily with a predicted molecular weight of approximately 100 kDa. It is 892 amino acids in length and shares 99% aa identity with mouse and rat ACTN1. Multiple splice forms exist, resulting in 4 distinct isoforms with different tissue expression patterns. ACTN1 binds to F-actin as well as other cytoskeletal and signaling proteins and plays an important role in both cell motility and muscle contraction.