**α-Actinin Antibody**

**Store at –20°C**

For Research Use Only. Not For Use In Diagnostic Procedures.

<table>
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<tr>
<th>Applications</th>
<th>Species Cross-Reactivity*</th>
<th>Molecular Wt.</th>
<th>Source</th>
<th>Source/Purification</th>
</tr>
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<tbody>
<tr>
<td>W, IF-IC</td>
<td>Endogenous</td>
<td>100 kDa</td>
<td>Rabbit</td>
<td>Polyclonal antibodies are produced by immunizing rabbits with a synthetic peptide (KLH-coupled) corresponding to carboxy-terminal residues of human α-actinin-1.</td>
</tr>
</tbody>
</table>

**Background:** α-Actinin belongs to the spectrin family of cytoskeletal proteins. It was first recognized as an actin cross-linking protein, forming an antiparallel homodimer with an actin binding head at the amino terminus of each monomer. The α-actinin protein interacts with a large number of proteins involved in signaling to the cytoskeleton, including those involved in cellular adhesion, migration, and immune cell targeting (1). The interaction of α-actinin with intercellular adhesion molecule-5 (ICAM-5) helps to promote neurite outgrowth (2). In osteoblasts, interaction of α-actinin with integrins stabilizes focal adhesions and may protect cells from apoptosis (3). The cytoskeletal α-actinin isoforms 1 and 4 (ACTN1, ACTN4) are non-muscle proteins that are present in stress fibers, sites of adhesion and intercellular contacts, filopodia, and lamellipodia. The muscle isoforms 2 and 3 (ACTN2, ACTN3) localize to the Z-discs of striated muscle and to dense bodies and plaques in smooth muscle (1).

**Specificity/Sensitivity:** α-Actinin Antibody detects endogenous levels of total α-actinin protein.

**Recommended Antibody Dilutions:**
- Western blotting: 1:1000
- Immunofluorescence (IF-IC): 1:25

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

**Background References:**

**Important:** For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

**Important:** α-Actinin Antibody is a trademark of Cell Signaling Technology, Inc.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

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**Applications Key:**
- **W**—Western
- **IP**—Immunoprecipitation
- **HC**—Immunohistochemistry
- **CLNP**—Chloralinated Immunoprecipitation
- **IF**—Immunofluorescence
- **F**—Flow cytometry
- **E-P**—ELISA-Peptide

**Species Cross-Reactivity Key:**
- **H**—human
- **M**—mouse
- **R**—rat
- **Hm**—hamster
- **Mk**—monkey
- **Mi**—mink
- **C**—chicken
- **Dm**—D. melanogaster
- **X**—Xenopus
- **Z**—zebrafish
- **B**—bovine
- **Dg**—dog
- **Pg**—pig
- **Sc**—S. cerevisiae
- **Ce**—C. elegans
- **Hr**—horse
- **All**—all species expected

**Species enclosed in parentheses are predicted to react based on 100% homology.**

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