

DESCRIPTION

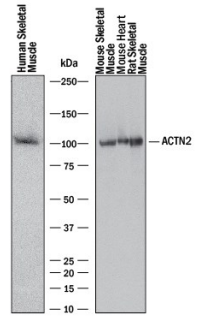
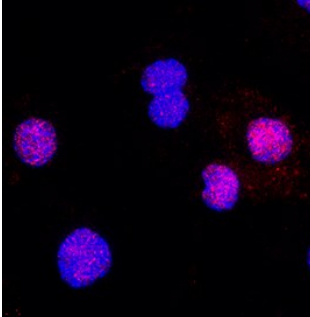
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human ACTN2 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2285D
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Synthetic peptide containing human ACTN2 Accession # P35609
Formulation	Lyophilized from a 0.2 µm 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 µm 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
Western Blot	0.2 µg/mL	See Below
Immunocytochemistry	3-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human, Mouse, and Rat alpha Actinin 2 by Western Blot. Western blot shows lysates of human skeletal muscle tissue, mouse skeletal muscle tissue, mouse heart tissue, and rat skeletal muscle tissue. PVDF membrane was probed with 0.2 µg/mL of Rabbit Anti-Human/Mouse/Rat alpha Actinin 2 Monoclonal Antibody (Catalog # MAB9830) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for alpha Actinin 2 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>Alpha Actinin 2 in C2C12 mouse myoblast cell line. Alpha Actinin 2 was detected in immersion fixed C2C12 mouse myoblast cell line using Rabbit Anti-Human/Mouse/Rat alpha Actinin 2 Monoclonal Antibody (Catalog # MAB9830) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Actinins are F-actin cross-linking proteins thought to anchor actin to a variety of intracellular structures. alpha-Actinin 2 (ACTN2) is a member of the spectrin superfamily with a predicted molecular weight of approximately 104 kDa. It is 894 amino acids (aa) in length and shares 99% aa identity with mouse and rat ACTN2. Two splice forms exist, resulting in 2 distinct isoforms. ACTN2 homodimerizes in an anti-parallel fashion, and can also form heterodimers with ACTN3.