

### 36-3434: Anti-Sarcomeric Actinin Alpha 2 / ACTN2 Monoclonal Antibody(Clone: ACTN2/3291)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	ACTN2/3291
<b>Application :</b>	IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	ACTN2
<b>Gene ID :</b>	88
<b>Uniprot ID :</b>	P35609
<b>Alternative Name :</b>	Actin binding protein; Alpha actinin skeletal muscle, isoform 2; CMD1AA; F-actin cross-linking protein
<b>Isotype :</b>	Mouse IgG1, kappa
<b>Immunogen Information :</b>	A recombinant fragment (aa557-692) of human ACTN2 protein(exact sequence is proprietary)

#### Description

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 non-muscle 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.

#### Product Info

<b>Amount :</b>	20 µg / 100 µg
<b>Content :</b>	200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage condition :</b>	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

#### Application Note

Immunohistochemistry (Formalin-fixed) (1-2µg/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes);

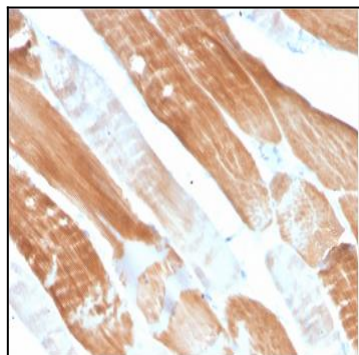


Fig. 1: Formalin-fixed, paraffin-embedded human Skeletal Muscle stained with Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3291).

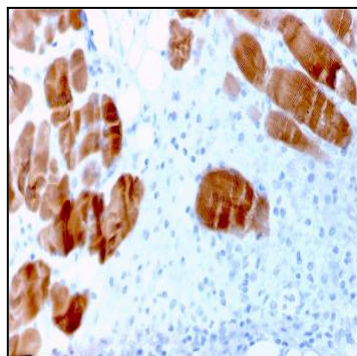


Fig. 2: Formalin-fixed, paraffin-embedded human Skeletal Muscle stained with Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3291).

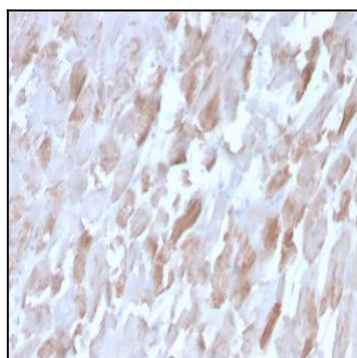


Fig. 3: Formalin-fixed, paraffin-embedded human Cardiac Muscle stained with Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3291).

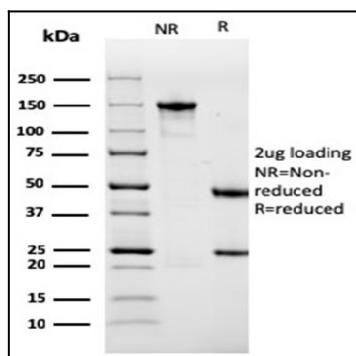


Fig. 4: SDS-PAGE Analysis Purified Sarcomeric Actinin Alpha 2 Mouse MAb (ACTN2/3291). Confirmation of Purity and Integrity of Antibody.

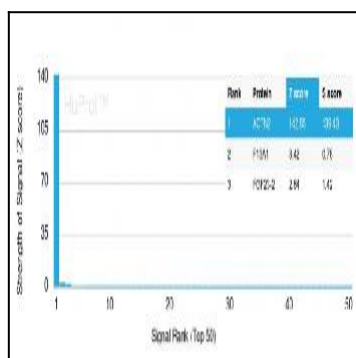


Fig. 5: Analysis of Protein Array containing more than 19,000 full-length human proteins using Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3291). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.