

### 36-3436: Anti-Sarcomeric Actinin Alpha 2 / ACTN2 Monoclonal Antibody(Clone: ACTN2/3293)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	ACTN2/3293
<b>Application :</b>	WB,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

Western Blot (1-2ug/ml); Immunohistochemistry (Formalin-fixed) (1-2ug/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 (ACTN2/3293).

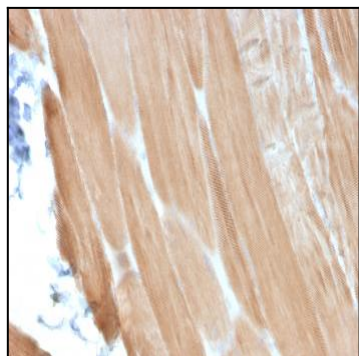


Fig. 2: Formalin-fixed, paraffin-embedded human Skeletal Muscle stained with Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3293)

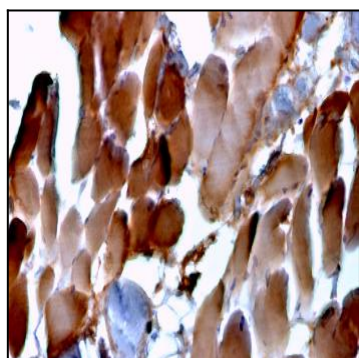


Fig. 3: Formalin-fixed, paraffin-embedded human cardiac muscle stained with Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3293).

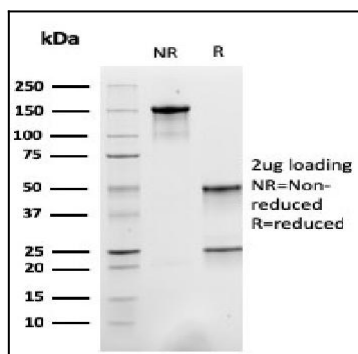


Fig. 4: SDS-PAGE Analysis Purified ACTN2 Mouse Monoclonal Antibody (ACTN2/3293). Confirmation of Purity and Integrity of Antibody.

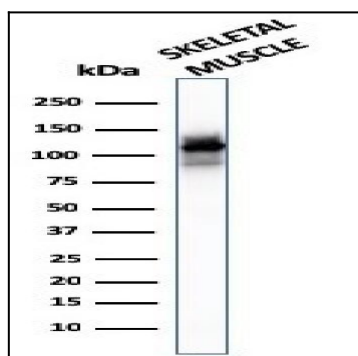


Fig. 5: Western Blot of human skeletal muscle tissue lysates using Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3293).

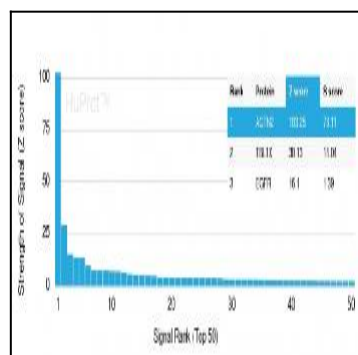


Fig. 6: Analysis of Protein Array containing more than 19,000 full-length human proteins using Sarcomeric Actinin Alpha 2 Mouse Monoclonal Antibody (ACTN2/3293). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD<sup>™</sup>s) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD<sup>™</sup>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 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.