

Product Datasheet

ACTN2 Antibody / Alpha Actinin 2 / Sarcomeric Alpha Actinin (orb2642752)

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.
Species/Host	Mouse
Reactivity	Human
Conjugation	Unconjugated
Tested Applications	IHC-P, WB
Immunogen	Amino acids 557-692 from the human protein were used as the immunogen for this Sarcomeric Alpha Actinin antibody.
Preservatives	0.2 mg/ml in 1X PBS with 0.05% sodium azide
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Application notes	The optimal dilution of the Sarcomeric Alpha Actinin antibody for each application should be determined by the researcher. 1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

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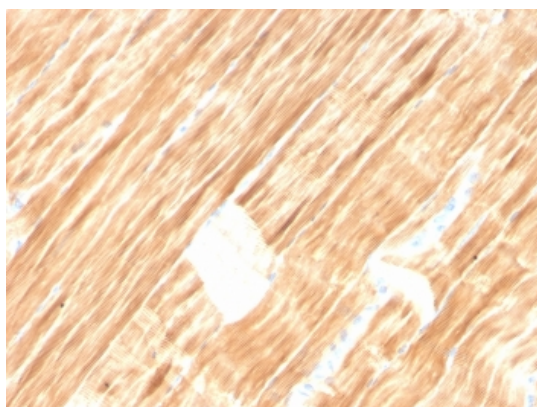
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Formula	0.2 mg/ml in 1X PBS with 0.05% sodium azide
Isotype	Mouse IgG2b, kappa
Clonality	Monoclonal
Clone Number	ACTN2/3292
Antibody Type	Primary Antibody
Purity	Protein G affinity chromatography
Uniprot ID	P35609
Hazard Information	This Sarcomeric Alpha Actinin antibody is available for research use only.
Dilution Range	Western blot: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Expiration Date	12 months from date of receipt.



IHC staining of FFPE human skeletal muscle tissue with Sarcomeric Alpha Actinin antibody (clone ACTN2/3292). HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.



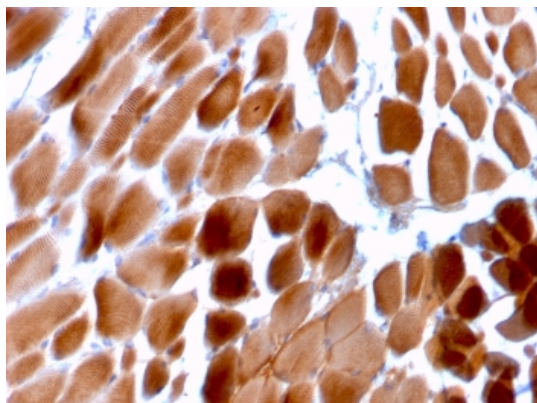
IHC staining of FFPE human skeletal muscle tissue with Sarcomeric Alpha Actinin antibody (clone ACTN2/3292). HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.

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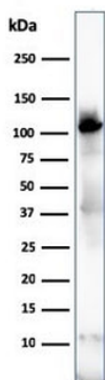
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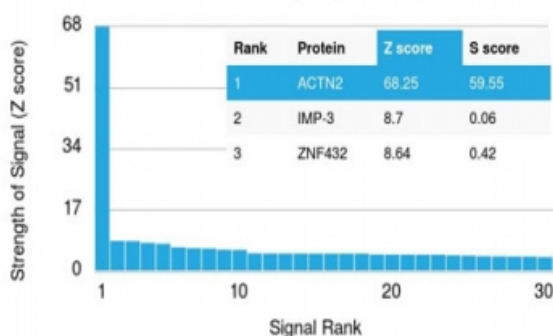


IHC staining of FFPE human cardiac muscle tissue with Sarcomeric Alpha Actinin antibody (clone ACTN2/3292). HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.



Western blot testing of human skeletal muscle lysate with Sarcomeric Alpha Actinin antibody (clone ACTN2/3292). Predicted molecular weight ~103 kDa.

Human Protein Microarray Specificity Validation



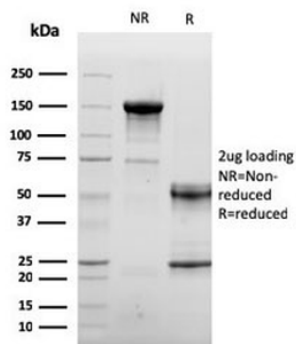
Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using Sarcomeric Alpha Actinin antibody (clone ACTN2/3292). These results demonstrate the foremost specificity of the ACTN2/3292 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

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SDS-PAGE analysis of purified, BSA-free Sarcomeric Alpha Actinin antibody (clone ACTN2/3292) as confirmation of integrity and purity.

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