# Actinin Alpha 2 (ACTN2) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | Actinin Alpha 2 (ACTN2), ELISA Kit |
| **Full Product Name** | Human Actinin Alpha 2 ELISA Kit |
| **Product Gene Name** | ACTN2 elisa kit |
| **Species Reactivity** | Human |
| **Assay Type** | Sandwich |
| **Preparation and Storage** | Store all reagents at 2-8 degree C |
| **Molecular Weight** | 103,854 Da |
| **Chromosome Location** | Chromosome: 1; NC_000001.10 (236849770..236927558). Location: 1q42-q43 |
| **OMIM** | 102573 |
| **3D Structure** | ModBase 3D Structure for P35609 |
| **Related Product Information for ACTN2 elisa kit** | MBS017120 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Actinin Alpha 2 (ACTN2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing ACTN2. The ELISA analytical biochemical technique of the MBS017120 kit is based on ACTN2 antibody-ACTN2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ACTN2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ACTN2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%). |
| **Other Notes** | Small volumes of ACTN2 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACTN2. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 507588250 |
| **NCBI GeneID** | 88 |
| **NCBI Accession #** | NP_001265273.1 |
| **UniProt Primary Accession #** | P35609 |
| **UniProt Secondary Accession #** | Q86TF4; Q86TI8; B1ANE4 |
| **UniProt Related Accession #** | P35609 |
| **GenBank Nucleotide #** | NM_001278344.1 |
| **NCBI Official Full Name** | alpha-actinin-2 isoform 3 |
| **NCBI Official Synonym Full Names** | actinin, alpha 2 |
| **NCBI Official Symbol** | ACTN2 |
| **NCBI Official Synonym Symbols** | CMD1AA |
| **UniProt Protein Name** | Alpha-actinin-2 |

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| **UniProt Synonym Protein Names** | Alpha-actinin skeletal muscle isoform 2; F-actin cross-linking protein |
| **Protein Family** | Alpha-actinin |
| **UniProt Gene Name** | ACTN2 |
| **UniProt Entry Name** | ACTN2_HUMAN |
| **NCBI Protein Information** | alpha-actinin-2; F-actin cross-linking protein; alpha-actinin skeletal muscle |
| **NCBI Summary for ACTN2** | 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 nonmuscle 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. [provided by RefSeq, May 2013] |
| **UniProt Comments for ACTN2** | ACTN2: F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein. Defects in ACTN2 are the cause of cardiomyopathy dilated type 1AA (CMD1AA). Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Belongs to the alpha-actinin family.<br><br>Protein type: Motility/polarity/chemotaxis; Cytoskeletal<br><br>Chromosomal Location of Human Ortholog: 1q42-q43<br><br>Cellular Component: cortical actin cytoskeleton; cytoskeleton; focal adhesion; dendritic spine; extracellular region; actin filament; pseudopodium; cytosol; Z disc; filopodium<br><br>Molecular Function: protein dimerization activity; actin filament binding; integrin binding; identical protein binding; LIM domain binding; protein binding; structural constituent of muscle; cytoskeletal protein binding; titin binding; calcium ion binding; FATZ binding; thyroid hormone receptor coactivator activity<br><br>Biological Process: focal adhesion formation; platelet activation; negative regulation of potassium ion transport; positive regulation of potassium ion transport; muscle filament sliding; protein homotetramerization; regulation of apoptosis; synaptic transmission; regulation of membrane potential; platelet degranulation; microspike biogenesis; blood coagulation; cell adhesion<br><br>Disease: Cardiomyopathy, Dilated, 1aa |
| **Research Articles on ACTN2** | **1.** This study generated the genomic sequences of K88-positive and F18-positive porcine enteroteoxigenic E. coli (ETEC) strains and examined the phylogenetic distribution of clinical porcine ETEC strains and their plasmid-associated genetic content. |
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| **Product Note** | Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details. |

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