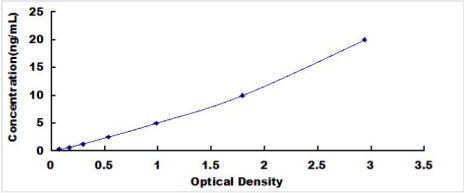
Actin Alpha 1, Skeletal Muscle (ACTa1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Actin Alpha 1, Skeletal Muscle (ACTa1), ELISA Kit
Full Product Name	Human Actin Alpha 1, Skeletal Muscle (ACTa1) ELISA Kit
Product Gene Name	ACTa1 elisa kit
Product Synonym Names	ACT-A1; ASMA; CFTD; CFTD1; CFTDM; MPFD; NEM1; NEM2; NEM3
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue Homogenates, Cell Lysates, Cell Culture Supernates or Other Biological Fluids.
Detection Range	0.312-20ng/mL
Sensitivity	0.118ng/mL
Preparation and Storage	For unopened kits: All the reagents should be kept at 4 degree C upon receipt. For opened kits: Once the kit is opened, the remaining reagents still need to be stored according to the above storage conditions. In addition, return the unused wells to the foil pouch containing the desiccant pack and reseal along entire edge of zip-seal.
Molecular Weight	42,051 Da
OMIM	102610
3D Structure	ModBase 3D Structure for P68133
RTU ELISA Kit's Advantage	The Ready-To-Use (RTU) Kits require fewer steps in setup and take less time to run. Detection Solutions are pre-diluted and total incubation time is shorter than many other ELISA Kits.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for ACTa1 elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to ACTa1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to ACTa1. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain ACTa1, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of ACTa1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of ACTa1 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.
Searchable Terms for ACTa1 purchase	MBS457339 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Actin Alpha 1, Skeletal Muscle (ACTa1) 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 ACTa1. The ELISA analytical biochemical technique of the MBS457339 kit is based on ACTa1 antibody-ACTa1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ACTa1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ACTa1. 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(%).



Typical Testing Data/Standard Curve (for reference only) of ACTa1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACTa1. It may not necessarily be applicable to this product.

NCBI GI #	4501881
NCBI GeneID	58
NCBI Accession #	NP_001091.1
UniProt Primary Accession #	P68133
UniProt Secondary Accession #	P02568; P99020; Q5T8M9
UniProt Related Accession #	P68133
GenBank Nucleotide #	NM_001100.3
NCBI Official Full Name	actin, alpha skeletal muscle
NCBI Official Synonym Full Names	actin, alpha 1, skeletal muscle
NCBI Official Symbol	ACTA1
NCBI Official Synonym Symbols	ACTA; ASMA; CFTD; MPFD; NEM1; NEM2; NEM3; SHPM; CFTD1; CFTDM
UniProt Protein Name	Actin, alpha skeletal muscle
UniProt Synonym Protein Names	Alpha-actin-1
UniProt Gene Name	ACTA1
UniProt Synonym Gene Names	ACTA
NCBI Protein Information	actin, alpha skeletal muscle
NCBI Summary for ACTa1	The product encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Mutations in this gene cause nemaline myopathy type 3, congenital myopathy with excess of thin myofilaments, congenital myopathy with cores, and congenital myopathy with fiber-type disproportion, diseases that lead to muscle fiber defects. [provided by RefSeq, Jul 2008]
UniProt Comments for ACTa1	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
Research Articles on ACTa1	**1.** The study confirmed ACTA1 mutations in four patients, including one with intranuclear rods, one with large intracytoplasmic aggregates, and two with nemaline intracytoplasmic rods.
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