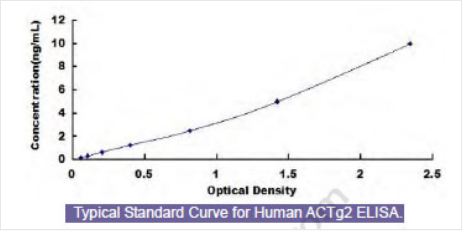
Actin Gamma 2, Smooth Muscle (ACTg2) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Actin Gamma 2, Smooth Muscle (ACTg2), ELISA Kit
Full Product Name	Human Actin Gamma 2, Smooth Muscle (ACTg2) ELISA Kit
Product Gene Name	ACTg2 elisa kit
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue homogenates and other biological fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.053ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of ACTg2. No significant cross-reactivity or interference between ACTg2 and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level ACTg2 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level ACTg2 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	37,083 Da
OMIM	X16940 mRNA
3D Structure	ModBase 3D Structure for P63267
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for ACTg2 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of ACTg2 in human tissue homogenates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to ACTg2. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to ACTg2. 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 ACTg2, 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 ACTg2 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of ACTg2 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 ACTg2 purchase	MBS456014 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Actin Gamma 2, Smooth Muscle (ACTg2) 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 ACTg2. The ELISA analytical biochemical technique of the MBS456014 kit is based on ACTg2 antibody-ACTg2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ACTg2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ACTg2. 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 ACTg2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACTg2. It may not necessarily be applicable to this product.

NCBI GI #	315570273
NCBI GeneID	72
NCBI Accession #	NP_001186822.1
UniProt Primary Accession #	P63267
UniProt Secondary Accession #	P12718; Q504R1; Q6FI22; B2R7E7; B4E315; D6W5H8; E9PG30
UniProt Related Accession #	P63267
GenBank Nucleotide #	NM_001199893.1
NCBI Official Full Name	actin, gamma-enteric smooth muscle isoform 2
NCBI Official Synonym Full Names	actin, gamma 2, smooth muscle, enteric
NCBI Official Symbol	ACTG2
NCBI Official Synonym Symbols	ACT; ACTE; VSCM; ACTA3; ACTL3; ACTSG
UniProt Protein Name	Actin, gamma-enteric smooth muscle
UniProt Synonym Protein Names	Alpha-actin-3; Gamma-2-actin; Smooth muscle gamma-actin
Protein Family	Actin
UniProt Gene Name	ACTG2
UniProt Synonym Gene Names	ACTA3; ACTL3; ACTSG
NCBI Protein Information	actin, gamma-enteric smooth muscle
NCBI Summary for ACTg2	Actins are highly conserved proteins that are involved in various types of cell motility and in the maintenance of the cytoskeleton. Three types of actins, alpha, beta and gamma, have been identified in vertebrates. Alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins co-exist in most cell types as components of the cytoskeleton and as mediators of internal cell motility. This gene encodes actin gamma 2; a smooth muscle actin found in enteric tissues. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Based on similarity to peptide cleavage of related actins, the mature protein of this gene is formed by removal of two N-terminal peptides.[provided by RefSeq, Dec 2010]
UniProt Comments for ACTg2	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 ACTg2	**1.** A heterozygous missense variant in ACTG2 was identified that impaired actin polymerization in sporadic Megacystis microcolon intestinal hypoperistalsis syndrome.
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