ACTA1/ACTC1/ACTG1/ACTG2 (Human) Cell-Based ELISA Kit

Catalog # KA2556 Size 1 Kit

Specification

Product Description	ACTA1/ACTC1/ACTG1/ACTG2 (Human) Cell-Based ELISA Kit is an indirect enzyme-linked immun oassay for qualitative determination of ACTA1/ACTC1/ACTG1/ACTG2 expression in cultured cells.
Suitable Sample	Attached Cell, Loosely Attached Cell, Suspension Cell
Label	HRP-conjugated
Detection Method	Colorimetric
Assay Type	Qualitative
Reactivity	Human, Mouse, Rat
Regulation Status	For research use only (RUO)
Storage Instruction	Store the kit at 4°C.

Applications

- Qualitative

Gene Info — ACTA1

Entrez GeneID	58
Protein Accession#	P68032 (Gene ID : 58);P63261 (Gene ID : 70);P63267 (Gene ID : 71);P68133 (Gene ID : 72)
Gene Name	ACTA1
Gene Alias	ACTA, ASMA, CFTD, CFTD1, CFTDM, MPFD, NEM1, NEM2, NEM3
Gene Description	actin, alpha 1, skeletal muscle

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Omim ID	102610 161800 255310
Gene Ontology	Hyperlink
Gene Summary	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
Other Designations	OTTHUMP00000036123|alpha skeletal muscle actin

Gene Info — ACTC1

Entrez GeneID	70
Protein Accession#	P68032 (Gene ID : 58);P63261 (Gene ID : 70);P63267 (Gene ID : 71);P68133 (Gene ID : 72)
Gene Name	ACTC1
Gene Alias	ACTC, CMD1R, CMH11
Gene Description	actin, alpha, cardiac muscle 1
Omim ID	102540 192600
Gene Ontology	Hyperlink
Gene Summary	Actins are highly conserved proteins that are involved in various types of cell motility. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to four others. The protein encoded by this gene belongs to the actin family which is comprised of three main groups of actin isoforms, alpha, beta, and gamma. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. Defects in this gene have been associated with idiopathic dilated cardiomyopathy (IDC) and familial hypertrophic cardiomyopathy (FHC). [provided by RefSeq
Other Designations	cardiac muscle alpha actin 1

Gene Info — ACTG1

Entrez GeneID	71
Protein Accession#	P68032 (Gene ID : 58);P63261 (Gene ID : 70);P63267 (Gene ID : 71);P68133 (Gene ID : 72)

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Gene Name	ACTG1
Gene Alias	ACT, ACTG, DFNA20, DFNA26
Gene Description	actin, gamma 1
Omim ID	102560 604717
Gene Ontology	Hyperlink
Gene Summary	Actins are highly conserved proteins that are involved in various types of cell motility, and maintenance of the cytoskeleton. In vertebrates, three main groups of actin isoforms, alpha, beta and gamma have been identified. The 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. Actin, gamma 1, encoded by this gene, is a cytoplasmic actin found in nonmuscle cells. [provided by RefSeq
Other Designations	actin, cytoplasmic 2|actin, gamma 1 propeptide|cytoskeletal gamma-actin

Gene Info — ACTG2

Entrez GeneID	72
Protein Accession#	P68032 (Gene ID : 58);P63261 (Gene ID : 70);P63267 (Gene ID : 71);P68133 (Gene ID : 72)
Gene Name	ACTG2
Gene Alias	ACT, ACTA3, ACTE, ACTL3, ACTSG
Gene Description	actin, gamma 2, smooth muscle, enteric
Omim ID	102545
Gene Ontology	Hyperlink
Gene Summary	Actins are highly conserved proteins that are involved in various types of cell motility, and maintenance of the cytoskeleton. In vertebrates, three main groups of actin isoforms, alpha, beta and gamma have been identified. The 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. Actin, gamma 2, encoded by this gene, is a smooth muscle actin found in enteric tissues. [provided by RefSeq
Other Designations	actin, gamma 2|actin-like protein|alpha-actin 3|smooth muscle gamma actin

Pathway

- Adherens junction

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- Arrhythmogenic right ventricular cardiomyopathy (ARVC)
- Cardiac muscle contraction
- Focal adhesion
- Hypertrophic cardiomyopathy (HCM)
- Hypertrophic cardiomyopathy (HCM)
- Leukocyte transendothelial migration
- Pathogenic Escherichia coli infection - EHEC
- Regulation of actin cytoskeleton
- Tight junction
- Vascular smooth muscle contraction
- Vibrio cholerae infection

Disease

- Acute Disease
- Alzheimer disease
- Atherosclerosis
- Calcinosis
- Cardiomegaly
- Cardiomyopathies
- Cardiomyopathy
- Cardiovascular Diseases
- Cholestasis
- Coronary Artery Disease
- Diabetes Mellitus
- Diabetes Mellitus
- Edema

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- Genetic Predisposition to Disease
- Myocardial Infarction
- Myopia
- Parkinson disease
- Pre-Eclampsia
- Pregnancy Complications

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