

## Recombinant Human ACTC1, His-tagged

Cat. No. ACTC1-9333H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human ACTC1 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.

**Species** Human

**Source** E.coli

**ProteinLength** 1-50a.a.

**Description** 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).

**Storage** The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

**Storage Buffer** 1M PBS (58mM Na<sub>2</sub>HPO<sub>4</sub>, 17mM NaH<sub>2</sub>PO<sub>4</sub>, 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.

### GENE INFORMATION

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<b>Gene Name</b>	ACTC1 actin, alpha, cardiac muscle 1 [ Homo sapiens ]
<b>Official Symbol</b>	ACTC1
<b>Synonyms</b>	ACTC1; actin, alpha, cardiac muscle 1; ACTC, actin, alpha, cardiac muscle; actin, alpha cardiac muscle 1; CMD1R; alpha-cardiac actin; ACTC; ASD5; CMH11; LVNC4;
<b>Gene ID</b>	70
<b>mRNA Refseq</b>	NM_005159
<b>Protein Refseq</b>	NP_005150
<b>MIM</b>	102540
<b>UniProt ID</b>	P68032
<b>Chromosome Location</b>	15q11-q14
<b>Pathway</b>	Cardiac muscle contraction, organism-specific biosystem; Cardiac muscle contraction, conserved biosystem; Dilated cardiomyopathy, organism-specific biosystem; Dilated cardiomyopathy, conserved biosystem; Hypertrophic cardiomyopathy (HCM), organism-specific biosystem; Hypertrophic cardiomyopathy (HCM), conserved biosystem; Myometrial Relaxation and Contraction Pathways, organism-specific biosystem;
<b>Function</b>	ATP binding; ATPase activity; myosin binding; myosin binding; nucleotide binding;

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