

## Recombinant Human ACTN1, GST-tagged

Cat. No. ACTN1-9339H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human ACTN1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.

**Species** Human

**Source** E.coli

**ProteinLength** C-term-350a.a.

**Description** 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 nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this gene.

**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 100mM GSH and 1% Triton X-100, 15% glycerol.

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## GENE INFORMATION

<b>Gene Name</b>	ACTN1 actinin, alpha 1 [ Homo sapiens ]
<b>Official Symbol</b>	ACTN1
<b>Synonyms</b>	ACTN1; actinin, alpha 1; alpha-actinin-1; actinin 1 smooth muscle; non-muscle alpha-actinin-1; F-actin cross-linking protein; alpha-actinin cytoskeletal isoform; FLJ40884; FLJ54432;
<b>Gene ID</b>	87
<b>mRNA Refseq</b>	NM_001102
<b>Protein Refseq</b>	NP_001093
<b>MIM</b>	102575
<b>UniProt ID</b>	P12814
<b>Chromosome Location</b>	14q24.1
<b>Pathway</b>	Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Arrhythmogenic right ventricular cardiomyopathy (ARVC), organism-specific biosystem; Arrhythmogenic right ventricular cardiomyopathy (ARVC), conserved biosystem; Cell junction organization, organism-specific biosystem;
<b>Function</b>	actin binding; actin filament binding; calcium ion binding; integrin binding; ion channel binding; protein binding; protein domain specific binding; vinculin binding;

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