

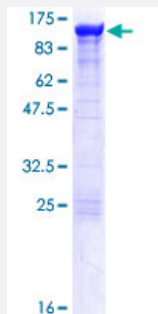
Full-Length

ACTN4 (Human) Recombinant Protein (P01)

Catalog # H00000081-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human ACTN4 full-length ORF (NP_004915.2, 1 a.a. - 911 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MVDYHAANQSYQYGPSSAGNGAGGGGSMGDYMAQEDDWRDLLLLPAWEKQQRKTFTAWCN
SHLRKAGTQIENIDEDFRDGLKMLLLEVISGERLPKPERGKMRVHKINNVNKALDFIASKGVKLVS
GAEIVDGNAMTLGMIWTILRFAIQDISVEETSAKEGLLLWCQRKTAPYKNVNVQNFHISWKDGL
AFNALIHRHRPELIEYDKLRKDDPVTNLNNAFEVAEKYLDIPKMLDAEDIVNTARPDEKAIMTYVSSF
YHAFSGAQKAETAANRICKVLAVNQENEHLMEDYEKLASDLLEWIRRTIPWLEDVRPQKTIQEMQ
QKLEDFRDYRRVHKPPKVQEKQLEINFNTLQTKLRLSNRPAFMPSEGKMSVDINNGWQHLEQA
EKGYYEELLNEIRRLERLDHLAEKFRQKASIHEAWTDGKEAMLKHRDYETATLSDIKALIRKHEAF
ESDLAAHQDRVEQIAAIAQELNELDYDSHNVNTRCQKICDQWDALGSLTHSRREALEKTEKQLE
AIDQLHLEYAKRAAPFNNWMESAMEDLQDMFVHTIEEIEGLISAHDQFKSTLPDADREREAILAIHK
EAQRIAESNHILSGSNPYTTVTPQIINSKWEKVQQLVPRDHALLEEQSKQQSNEHLRRQFASQA
NVVGPWIQTKMEEIGRISIEMNGTLEDQLSHLKQYERSVDYKPNLDLLEQQHQLIQEALIFDNKHTN
YTMEHIRVGWEQLLTTIARTINEVENQILTRDAKGISQEQMQEFRAFNFHFDKDHGGALGPEEFKA
CLISLGYDVENDRQGEAEFNRIMSLVDPNHSGLVTFQAFIDFMSRETTDTDTADQVIASFVLAGD
KNFITAEELRRELPPDQAEYCIARMAPYQGPDAVPGALDYKSFSTALYGESDL

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

131.3

Interspecies Antigen Sequence

Mouse (98); Rat (98)

Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — ACTN4

Entrez GeneID	81
GeneBank Accession#	NM_004924.3
Protein Accession#	NP_004915.2
Gene Name	ACTN4
Gene Alias	ACTININ-4, DKFZp686K23158, FSGS, FSGS1
Gene Description	actinin, alpha 4
Omim ID	603278 604638
Gene Ontology	Hyperlink

Gene Summary

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, alpha actinin isoform which is concentrated in the cytoplasm, and is thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis. [provided by RefSeq]

Other Designations

actinin alpha4 isoform

Publication Reference

- [The Pseudomonas aeruginosa N-acylhomoserine lactone quorum sensing molecules target IQGAP1 and modulate epithelial cell migration.](#)

Karlsson T, Turkina MV, Yakymenko O, Magnusson KE, Vikström E.

PLoS Pathogens 2012 Oct; 8(10):e1002953.

Application: Func, PI, WB-Re, Recombinant protein

Pathway

- [Adherens junction](#)
- [Arrhythmogenic right ventricular cardiomyopathy \(ARVC\)](#)
- [Focal adhesion](#)
- [Leukocyte transendothelial migration](#)
- [Regulation of actin cytoskeleton](#)
- [Systemic lupus erythematosus](#)
- [Tight junction](#)

Disease

- [Alport syndrome](#)
- [Cardiovascular Diseases](#)

- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Glomerulosclerosis](#)
- [Kidney Diseases](#)
- [Proteinuria](#)