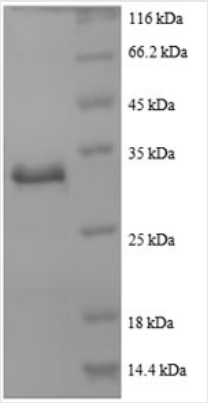
Actin, Cytoplasmic 1 Protein (ACTB) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Actin, cytoplasmic 1 protein (ACTB), Recombinant Protein
Full Product Name	Recombinant Human Actin, cytoplasmic 1 protein
Product Gene Name	ACTB recombinant protein
Product Synonym Names	Beta-actin
Sequence	PVLLTEAPLN PKANREKMTQ IMFETFNTPA MYVAIQAVLS LYASGRTTGI VMDSGDGVTH TVPIYEGYAL PHAILRLDLA GRDLTDYLMK ILTERGYSFT TTAEREIVRD IKEKLCYVAL DFEQEMATAA SSSSLEKSYE LPDGQVITIG NERFRCPEAL FQPSFLGMES CGIHETTFNS IMKCDVDIRK DLYANTVLSG GTTMYPGIAD RMQKEITALA PSTMKIKIIA PPERKYSVWI GGSILASLST FQQMWISKQE YDESGPSIVH RKCF
Host	E Coli
Form/Format	Liquid containing glycerol
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.
Molecular Weight	34.6 kDa
Sequence Positions	102-375aa; Partial
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	102630
3D Structure	ModBase 3D Structure for P60709
Production Note	**Special Offer:** The E Coli host-expressed protein is manufactured from a stock plasmid containing the protein gene. E Colihost-expressed protein is stocked in different unit sizes ranging from as small as 10 ug to as large as 1 mg. Bulk inventory is also available. The E Coli host-expressed protein has been ordered over and over again by researchers and has stood the test of time as both a robust protein and important target for the research community. It is part of our new program to make our most popular protein targets and corresponding hosts available in expanded unit sizes and with a quick processing time. Select E Coli host-expressed protein for the fastest delivery among all hosts. Please contact our **technical support team** **or email to** **support@mybiosource.com** for more details.
Product Categories/Family for ACTB recombinant protein	Signal Transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for ACTB recombinant protein	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

Product References and Citations for ACTB recombinant protein	Evolutionary conservation in the untranslated regions of actin mRNAs DNA sequence of a human beta-actin cDNA.Ponte P., Ng S.Y., Engel J., Gunning P., Kedes L.Nucleic Acids Res. 12:1687-1696(1984) Molecular structure of the human cytoplasmic beta-actin gene interspecies homology of sequences in the introns.Nakajima-Iijima S., Hamada H., Reddy P., Kakunaga T.Proc. Natl. Acad. Sci. U.S.A. 82:6133-6137(1985) Direct proof that the primary site of action of cytochalasin on cell motility processes is actin.Ohmori H., Toyama S., Toyama S.J. 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Commun. 4:1832-1832(2013) De novo mutations in the actin genes ACTB and ACTG1 cause Baraitser-Winter syndrome.Riviere J.B., van Bon B.W., Hoischen A., Kholmanskikh S.S., O'Roak B.J., Gilissen C., Gijsen S., Sullivan C.T., Christian S.L., Abdul-Rahman O.A., Atkin J.F., Chassaing N., Drouin-Garraud V., Fry A.E., Fryns J.P., Gripp K.W., Kempers M., Kleefstra T., Mancini G.M., Nowaczyk M.J., van Ravenswaaij-Arts C.M., Roscioli T., Marble M., Rosenfeld J.A., Siu V.M., de Vries B.B., Shendure J., Verloes A., Veltman J.A., Brunner H.G., Ross M.E., Pilz D.T., Dobyns W.B.Nat. Genet. 44:440-444(2012)
Other Notes	Small volumes of ACTB recombinant protein 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 ACTB purchase	MBS1265534 is a recombinant protein targeting ACTB. Also known as Recombinant Human Actin, cytoplasmic 1 protein. Host: E Coli.



SDS-PAGE of ACTB recombinant protein

ADDITIONAL DETAILS

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

NCBI GI #	4501885
NCBI GeneID	60
NCBI Accession #	NP_001092.1
UniProt Primary Accession #	P60709
UniProt Secondary Accession #	P02570; P70514; P99021; Q11211; Q64316; Q75MN2; Q96B34; Q96HG5
UniProt Related Accession #	P60709
GenBank Nucleotide #	NM_001101.3
NCBI Official Full Name	actin, cytoplasmic 1
NCBI Official Synonym Full Names	actin, beta
NCBI Official Symbol	ACTB
NCBI Official Synonym Symbols	BRWS1; PS1TP5BP1
UniProt Protein Name	Actin, cytoplasmic 1
UniProt Synonym Protein Names	Beta-actin
Protein Family	Actin
UniProt Gene Name	ACTB
UniProt Entry Name	ACTB_HUMAN
NCBI Protein Information	actin, cytoplasmic 1
NCBI Summary for ACTB	This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, and integrity. This actin is a major constituent of the contractile apparatus and one of the two nonmuscle cytoskeletal actins. [provided by RefSeq, Jul 2008]

UniProt Comments for ACTB	ACTB: Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. 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 4 others. Identified in a mRNP granule complex, at least composed of ACTB, ACTN4, DHX9, ERG, HNRNPA1, HNRNPA2B1, HNRNPAB, HNRNPD, HNRNPL, HNRNPR, HNRNPU, HSPA1, HSPA8, IGF2BP1, ILF2, ILF3, NCBP1, NCL, PABPC1, PABPC4, PABPN1, RPLP0, RPS3, RPS3A, RPS4X, RPS8, RPS9, SYNCRIP, TROVE2, YBX1 and untranslated mRNAs. Component of the BAF complex, which includes at least actin (ACTB), ARID1A, ARID1B/BAF250, SMARCA2, SMARCA4/BRG1, ACTL6A/BAF53, ACTL6B/BAF53B, SMARCE1/BAF57 SMARCC1/BAF155, SMARCC2/BAF170, SMARCB1/SNF5/INI1, and one or more of SMARCD1/BAF60A, SMARCD2/BAF60B, or SMARCD3/BAF60C. In muscle cells, the BAF complex also contains DPF3. Found in a complex with XPO6, Ran, ACTB and PFN1. Component of the MLL5-L complex, at least composed of MLL5, STK38, PPP1CA, PPP1CB, PPP1CC, HCFC1, ACTB and OGT. Interacts with XPO6 and EMD. Interacts with ERBB2. Interacts with GCET2. Belongs to the actin family. Protein type: Motility/polarity/chemotaxis; Cytoskeletal Chromosomal Location of Human Ortholog: 7p22 Cellular Component: cytoplasm; cytoskeleton; cytosol; extracellular space; focal adhesion; membrane; NuA4 histone acetyltransferase complex; nuclear chromatin; nucleoplasm; plasma membrane; protein complex; ribonucleoprotein complex Molecular Function: ATP binding; identical protein binding; kinesin binding; nitric-oxide synthase binding; nucleosomal DNA binding; protein binding; structural constituent of cytoskeleton; Tat protein binding Biological Process: 'de novo' posttranslational protein folding; ATP-dependent chromatin remodeling; axon guidance; blood coagulation; cell motility; cellular protein metabolic process; ephrin receptor signaling pathway; establishment and/or maintenance of chromatin architecture; gene expression; innate immune response; intercellular junction assembly and maintenance; positive regulation of gene expression, epigenetic; protein folding; regulation of gene expression, epigenetic; retinal homeostasis; small GTPase mediated signal transduction; substantia nigra development; vascular endothelial growth factor receptor signaling pathway Disease: Baraitser-winter Syndrome 1; Dystonia, Juvenile-onset
Research Articles on ACTB	**1.** Data show that tripartite motif-containing 28 protein (TRIM28) and beta-actin were up-regulated in the glioblastoma multiforme (GBM) stem-like cells compared to the controls.
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