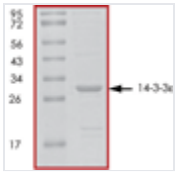
14-3-3 epsilon Recombinant Protein

PRODUCT OVERVIEW

Product Name	14-3-3 epsilon, Recombinant Protein
Full Product Name	14-3-3 epsilon recombinant protein
Product Gene Name	14-3-3 epsilon recombinant protein
Product Synonym Gene Name	14-3-3 epsilon; YWHAE; MDS; MDCR; KCIP-1; 14-3-3E; FLJ45465
Product Synonym Names	14-3-3 epsilon; YWHAE; MDS; MDCR; KCIP-1; 14-3-3E; FLJ45465; 14-3-3epsilon Protein; 14-3-3e Protein
Host	E Coli
Form/Format	50mM Tris-HCl, pH 7.5, 50mM NaCl, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Preparation and Storage	Store product at -70 degree C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles
Molecular Weight	~30kDa
Chromosome Location	Chromosome: 17; NC_000017.10 (1247833..1303669, complement). Location: 17p13.3
OMIM	605066
3D Structure	ModBase 3D Structure for P62258
Type	Recombinant Fusion Protein
Species	Human
Tag Information	tag-free
Expression System	E.coli
Source Note	Recombinant full-length human tag-free 14-3-3epsilon was expressed in E. coli.
Dry Ice Shipment	Extra charge fee may add to your shipping cost as dry ice is required to ship this product.
Product Categories/Family for 14-3-3 epsilon recombinant protein	Cell Stress & Chaperone Proteins; Signaling Proteins - Cell Stress & Chaperone Proteins
Applications Tested/Suitable for 14-3-3 epsilon recombinant protein	Western Blot (WB)
Related Product Information for 14-3-3 epsilon recombinant protein	Recombinant full-length human tag-free 14-3-3epsilon was expressed in E. coli. **Scientific Background:** 14-3-3thetau, also known as tyrosine 3-monooxygenase/ tryptophan 5-monooxygenase activation protein is a member of the 14-3-3 family. 14-3-3thetau has been reported to be involved in heat shock transcription factor 1 (HSF1) and extracellular signal regulated protein kinase (ERK) pathways (1). 14-3-3thetau interaction with the deubiquitinating enzyme UBPY, also known as USP8, regulates cargo sorting and membrane traffic at early endosomes. Association of 14-3-3thetau, HSF1 with ERK during heat shock may modulate the amplitude of the response and control the termination of HSP expression on resumption of growth conditions (2).
Product References and Citations for 14-3-3 epsilon recombinant protein	1.Wang, X. et al: Interactions between extracellular signal-regulated protein kinase 1, 14-3-3epsilon, and heat shock factor 1 during stress.J. Biol. Chem. 2004; 279(47):49460-9. 2.Mizuno, E. et al: 14-3-3-dependent inhibition of the deubiquitinating activity of UBPY and its cancellation in the M phase.Exp Cell Res. 2007; 313(16):3624-34.

Other Notes	Small volumes of 14-3-3 epsilon 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 14-3-3 epsilon purchase	MBS515294 is a recombinant protein targeting 14-3-3 epsilon. Host: E Coli.



SDS-PAGE of 14-3-3 epsilon recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for 14-3-3 epsilon. It may not necessarily be applicable to this product.

NCBI GI #	195546907
NCBI GeneID	7531
NCBI Accession #	NP_006752.1
UniProt Primary Accession #	P62258
UniProt Secondary Accession #	P29360; P42655; Q4VJB6; Q53XZ5; Q63631; Q7M4R4; B3KY71; D3DTH5
UniProt Related Accession #	P62258
GenBank Nucleotide #	NM_006761
NCBI Official Full Name	Homo sapiens tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide (YWHAE), transcript variant 1, mRNA
NCBI Official Synonym Full Names	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide
NCBI Official Symbol	YWHAE
NCBI Official Synonym Symbols	MDS; MDCR; KCIP-1; 14-3-3E
UniProt Protein Name	14-3-3 protein epsilon
Protein Family	1-acyl-sn-glycerol-3-phosphate acyltransferase
UniProt Gene Name	YWHAE
UniProt Synonym Gene Names	14-3-3E
UniProt Entry Name	1433E_HUMAN
NCBI Protein Information	14-3-3 protein epsilon; 14-3-3 epsilon; protein kinase C inhibitor protein-1; mitochondrial import stimulation factor L subunit; tyrosine 3/tryptophan 5 -monooxygenase activation protein, epsilon polypeptide
NCBI Summary for 14-3-3 epsilon	This gene product belongs to the 14-3-3 family of proteins which mediate signal transduction by binding to phosphoserine-containing proteins. This highly conserved protein family is found in both plants and mammals, and this protein is 100% identical to the mouse ortholog. It interacts with CDC25 phosphatases, RAF1 and IRS1 proteins, suggesting its role in diverse biochemical activities related to signal transduction, such as cell division and regulation of insulin sensitivity. It has also been implicated in the pathogenesis of small cell lung cancer. Two transcript variants, one protein-coding and the other non-protein-coding, have been found for this gene. [provided by RefSeq, Aug 2008]

UniProt Comments for 14-3-3 epsilon	Function: Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. Subunit structure: Homodimer. Heterodimerizes with YWHAZ. Interacts with NDEL1, ARHGEF28 and TIAM2 By similarity. Interacts with HCV core protein. Interacts with ABL1 (phosphorylated form); the interaction retains it in the cytoplasm. Weakly interacts with CDKN1B. Interacts with GAB2. Interacts with phosphorylated GRB10. Interacts with PKA-phosphorylated AANAT. Interacts with the phosphorylated (by AKT1) form of SRPK2. Ref.15 Ref.16 Ref.17 Ref.18 Ref.19 Ref.20 Ref.22 Ref.25 Ref.30 Subcellular location: Cytoplasm By similarity. Melanosome. Note: Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Ref.17 Ref.21 Sequence similarities: Belongs to the 14-3-3 family.
Research Articles on 14-3-3 epsilon	**1.** 14-3-3epsilon may act as an important regulator in modulating tumor metastasis by promoting epithelial-mesenchymal transition as well as cell migration.
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