

Ubiquitin Activating Enzyme E1/UBA1 Recombinant Protein | UBA1 recombinant protein

Ubiquitin Activating Enzyme E1/UBA1 Protein, Human, Recombinant (His & GST Tag)

CATALOG # AAA258001	HOST Baculovirus-Insect Cells
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PRODUCT SYNONYMS

Ubiquitin Activating Enzyme E1/UBA1; Ubiquitin Activating Enzyme E1/UBA1 Protein; Human; Recombinant (His & GST Tag); Human UBE1/UBA1 Protein (His & GST Tag); A1S9 Protein; A1S9T Protein; A1ST Protein; AMCX1 Protein; CFAP124 Protein; CTD-2522E6.1 Protein; GXP1 Protein; POC20 Protein; SMAX2 Protein; UBA1A Protein; UBE1 Protein; UBE1X Protein; ubiquitin-like modifier activating enzyme 1; UBA1 recombinant protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.4, 10% gly, 0.5mM GSH. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Sequence	Ser2-Arg10 58
Source	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Met
Tag	GST & His
Protein Construction	A DNA sequence encoding the human UBA1 (NP_003325.2)(Ser 2-Arg 1058) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.
Reconstitution	It is recommended that sterile water (200ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured BCA Method.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

ADDITIONAL INFORMATION

Related Product Information for UBA1 recombinant protein	Background: UBE1, also known as UBA1, belongs to the ubiquitin-activating E1 family. UBE1 gene complements an X-linked mouse temperature-sensitive defect in DNA synthesis, and thus may function in DNA repair. It is part of a gene cluster on chromosome Xp11.23. UBE1 catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation. It also catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding a ubiquitin-E1 thioester and free AMP. Defects in UBA1 can cause spinal muscular atrophy X-linked type 2 (SMAX2), also known as X-linked lethal infantile spinal muscular atrophy, distal X-linked arthrogryposis multiplex congenita or X-linked arthrogryposis type 1 (AMCX1). Spinal muscular atrophy refers to a group of neuromuscular disorders characterized by degeneration of the anterior horn cells of the spinal cord, leading to symmetrical muscle weakness and atrophy. SMAX2 is a lethal infantile form presenting with hypotonia, areflexia, and multiple congenital contractures.
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References	Jin J, et al. (2007) Dual E1 activation systems for ubiquitin differentially regulate E2 enzyme charging. Nature. 447(7148):1135-8.Xia T, et al. (2007) Chaperone-dependent E3 ligase CHIP ubiquitinates and mediates proteasomal degradation of soluble guanylyl cyclase. Am J Physiol Heart Circ Physiol. 293(5):H3080-7.Pridgeon JW, et al. (2009) Proteomic analysis reveals Hrs UIM-mediated ubiquitin signaling in multiple cellular processes. FEBS J. 276(1):118-31.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	23510338
NCBI GeneID	7317
NCBI Accession #	NP_003325.2
NCBI GenBank Nucleotide #	NM_003334.3
UniProt Accession #	P22314; Q5JRR8; Q96E13
Molecular Weight	Molecular Mass: The recombinant human UBA1/GST chimera consists of 1294 amino acids and has a calculated molecular mass of 146 KDa. It migrates as an approximately 130 KDa band in SDS-PAGE under reducing conditions.
NCBI Official Full Name	ubiquitin-like modifier-activating enzyme 1
NCBI Official Synonym Full Names	ubiquitin like modifier activating enzyme 1
NCBI Official Symbol	UBA1
NCBI Official Synonym Symbols	A1S9; A1ST; GXP1; UBE1; A1S9T; AMCX1; POC20; SMAX2; UBA1A; UBE1X; CFAP124
NCBI Protein Information	ubiquitin-like modifier-activating enzyme 1
UniProt Protein Name	Ubiquitin-like modifier-activating enzyme 1
UniProt Gene Name	UBA1
UniProt Synonym Gene Names	A1S9T; UBE1
UniProt Entry Name	UBA1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.