

Product Name: UBA1, tagged

Alternate Names: UBE1, A1S9

Product Code: TE1-001

Quantity: 25 µg

FOR RESEARCH USE ONLY (RUO)

Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

Verified Applications / Usage

Recombinant Ubiquitin Activating Enzyme 1 activates ubiquitin for subsequent transfer to a Ubiquitin Conjugating Enzyme (E2) in in vitro reactions. This initial event in the ubiquitin-proteasome cascade requires Mg-ATP and ubiquitin. Appropriate enzyme concentrations are specific to the application.

Physical Characteristics

Species: Homo sapiens (Human)

Predicted MW (kDa): 121 kDa

Source: Proprietary

Purity: 98%

Concentration: 5 µM

Formulation: 40 mM HEPES, 100 mM NaCl, 10% Glycerol, 1 mM EDTA, 1 mM TCEP, pH 7.6

Shipping: The product is shipped with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Stability/Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

Quality Assurance

Purity & SDS-PAGE

~i:134:100~

2 µg UBA1 run on 4-12% SDS-PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

Protein ID: Ubiquitin-like
modifier-activating enzyme 1

Activity Assay

Verified in Ubiquitin Charging Assay. Verified in UbiREAL Assay.

Background

Description

In vitro, UBA1 activates ubiquitin in an ATP-dependent manner, generating an E1-ubiquitin thioester that is competent for charging E2 conjugating enzymes and supporting various ubiquitylation assays. This protein contains N-terminal His6 and Strep II tags.

Accession Number: P22314

Entrez Gene ID: UBA1

Protein Sequence

MGWSHPQFEKGSHHHHHHHHGSLEVLFFQGP GSMSSSPLSKKRRVSG
PDPKPGSNCSPAQSVLSEVPSVPTNGMAKNGSEADIDEGLYSRQLYVL
GHEAMKRLQTSSVLVSGLRGLGVEIAKNIILGGVKAVTLHDQGTAQWA
DLSSQFYLR EEDIGKNRAEVSQPRLAELNSYVPVTAYTGPLVEDFLSGF
QVVVLTNTPLEDQLRVGEFCHNRGIKLVVADTRGLFGQLFCDFGEEMIL
TDSNGEQPLSAMVSMVTKDNPGVVTCLDEARHGFESGDFVSFSEVQG
MVELNGNQPM EIKVLGPYTFSICDTSNFSYIRGGIVSQVKVPKKISFKS
LVA SLAEPDFVVTDFAKFSRPAQLHIGFQALHQFCAQHGRPPRPRNEE
DAAELVALAQAVNARALPAVQQNNLDEDLIRKLAYVAAGDLAPINAFIG
GLAAQEV MKACSGKFMPI MQWLYFDALECLPEDKEVLTEDKCLQRQN
RYDGQVAVFGSDLQEKLGKQKYFLVGAGAIGCELLKNFAMIGLGC GEG
GEIIVTDMDTIEKSNLNRQFLFRPWDVTKLKSDTAAA AVRQMNPHIRVT
SHQNRVGP DTERIYDDDFQNL DGVANALDNVDARMYMDRRCVYYRK
PLLESGTLG TKGNVQVVIPFLTESYSSSQDPPEKSIPICTLKNFPNAIEHT
LQWARDEFEG LFKQPAENVNQYLTPKFVERTLRLAGTQPLEVLEAVQ
RSLVLQRPQTWADCVTWACHHWHTQYSNNIRQLLHNFPPDQLTSSGA
PFWSGPKRC PHPLTFDVNNPLHLDYVMAAANLFAQTYGLTGSQDRAA
VATFLQSVQVPEFTPKSGVKIHVSDQELQSANASVDDSRLEELKATLPS
PDKLPGFKMYPIDFEKDDDSNFHMDFIVAASNLR AENYDIPSADRHKSK
LIAGKIIPAIATTTAAVVGLVCLELYKVVQGHRQLDSYKNGFLNLALPFFG
FSEPLAAPRHQYYNQEWTLWDRFEVQGLQPNGEEMTLKQFLDYFKTE
HKLEITMLSQGVSM LYSFFMPAAKLKERLDQPMTEIVSRVSKRKLGRHV
RALVLELCCNDESGEDVEVPYVRYTIR