

USP5 recombinant protein

USP5 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA27763

HOST
Baculovirus-Insect Cells

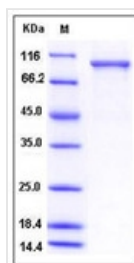
PRODUCT SYNONYMS

USP5; USP5 Protein; Human; Recombinant (His Tag); Human USP5/ISOT Protein (His Tag); ISOT Protein; ubiquitin specific peptidase 5 (isopeptidase T); USP5 recombinant protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 20mM Tris, 150mM NaCl, 10% Glycerol, pH 7.5, 5%Trehalose, 5%Mannitol, 0.01% Tween-80
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Met 1
Tag	His
Protein Construction	A DNA sequence encoding the human USP5 isoform short (P45974-2)(Met 1-Ser 835) was fused with a polyhistidine tag at the C-terminus.
Reconstitution	It is recommended that sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV-Vis.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -70°C. Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for USP5 recombinant protein	Background: Ubiquitin carboxyl-terminal hydrolase 5, also known as Deubiquitinating enzyme 5, Isopeptidase T, Ubiquitin thiolesterase 5, Ubiquitin-specific-processing protease 5, ISOT and USP5, is a member of the peptidase C19 family. USP5 contains 2 UBA domains and one UBP-type zinc finger. The UBP-type zinc finger domain interacts selectively with an unmodified C-terminus of the proximal ubiquitin. Both UBA domains are involved in polyubiquitin recognition. The UBP-type zinc finger domain crystallizes as a dimer linked by a disulfide bond between the Cys-195 residues of both molecules, but there is no evidence that the full-length USP5 exists as a dimer. USP5 cleaves linear and branched multiubiquitin polymers with a marked preference for branched polymers. USP5 is involved in unanchored 'Lys-48'-linked polyubiquitin disassembly. It binds linear and 'Lys-63'-linked polyubiquitin with a lower affinity. Knock-down of USP5 causes the accumulation of p53/TP53 and an increase in p53/TP53 transcriptional activity because the unanchored polyubiquitin that accumulates is able to compete with ubiquitinated p53/TP53 but not with MDM2 for proteasomal recognition.
References	Reyes-Turcu F.E., et al., 2006, Cell 124:1197-1208. Reyes-Turcu F.E., et al., 2008, J. Biol. Chem. 283:19581-19592. Dayal S., et al., 2009, J. Biol. Chem. 284:5030-5041. Burkard T.R., et al., 2011, BMC Syst. Biol. 5:17-17.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1717869
NCBI GeneID	8078
UniProt Accession #	P45974; Q96J22; D3DUS7; D3DUS8
Molecular Weight	The recombinant human USP5 consists of 846 amino acids and predicts a molecular mass of 94.7 kDa. It migrates as an approximately 100 kDa band in SDS-PAGE under reducing conditions.
NCBI Official Full Name	Ubiquitin carboxyl-terminal hydrolase 5
NCBI Official Synonym Full Names	ubiquitin specific peptidase 5 (isopeptidase T)
NCBI Official Symbol	USP5
NCBI Official Synonym Symbols	ISOT
NCBI Protein Information	ubiquitin carboxyl-terminal hydrolase 5; isopeptidase T; ubiquitin isopeptidase T; ubiquitin thioesterase 5; deubiquitinating enzyme 5; ubiquitin thiolesterase 5; ubiquitin-specific-processing protease 5; ubiquitin specific protease 5 (isopeptidase T); ub
UniProt Protein Name	Ubiquitin carboxyl-terminal hydrolase 5
UniProt Gene Name	USP5
UniProt Synonym Gene Names	ISOT
UniProt Entry Name	UBP5_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.