

Human USP5 / ISOT Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 12772-H08B

General Information

Gene Name Synonym:

ISOT

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.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met 1

Molecular Mass:

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.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

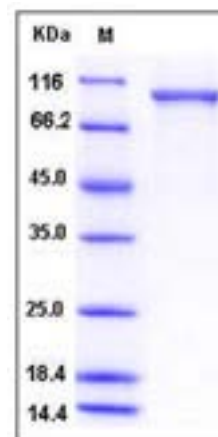
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 2UBA 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

1.Reyes-Turcu F.E., et al., 2006, Cell 124:1197-1208. 2.Reyes-Turcu F.E., et al., 2008, J. Biol. Chem. 283:19581-19592. 3.Dayal S., et al., 2009, J. Biol. Chem. 284:5030-5041.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217

● Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288

● Tel:+86-400-890-9989

● <http://www.sinobiological.com>