Recombinant Human USP5/ISOT Protein (His Tag)

Catalog Number: PKSH030782

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

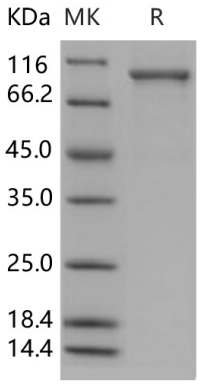
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human USP5/ISOT protein Met 1-Ser 835, with an C-terminal His
Calculated MW	94.7 kDa
Observed MW	100 kDa
Accession	P45974-2
Bio-activity	Not validated for activity

Properties

Purity	> 92 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 92 % as determined by reducing SDS-PAGE.

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 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.

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