Recombinant Protein Technical Manual

Recombinant Human USP5/ISOT Protein (His Tag)

RPES4801

Product Data:

Product SKU: RPES4801

Size: 50µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: P45974-2

Protein Information:

Molecular Mass:	94.7 kDa
AP Molecular Mass:	100 kDa
Tag:	C-His
Bio-activity:	
Purity:	> 92 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. 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
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	ISOT

Immunogen Information:

Sequence: Met 1-Ser 835

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 Cys95 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.