

Recombinant Human STUB1 Protein (K2-Y303), His tagged

Cat. No. STUB1-0446H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-TEV-(GG)-STUB1(K2-Y303 end) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	K2-Y303
Description	E3 ubiquitin-protein ligase which targets misfolded chaperone substrates towards proteasomal degradation. Collaborates with ATXN3 in the degradation of misfolded chaperone substrates: ATXN3 restricting the length of ubiquitin chain attached to STUB1/CHIP substrates and preventing further chain extension. Ubiquitinates NOS1 in concert with Hsp70 and Hsp40. Modulates the activity of several chaperone complexes, including Hsp70, Hsc70 and Hsp90. Mediates transfer of non-canonical short ubiquitin chains to HSPA8 that have no effect on HSPA8 degradation. Mediates polyubiquitination of DNA polymerase beta (POLB) at 'Lys-41', 'Lys-61' and 'Lys-81', thereby playing a role in base-excision repair: catalyzes polyubiquitination by amplifying the HUWE1/ARF-BP1-dependent monoubiquitination and leading to POLB-degradation by the proteasome. Mediates polyubiquitination of CYP3A4. Ubiquitinates EPHA2 and may regulate the receptor stability and activity through proteasomal degradation. Acts as a co-chaperone for HSPA1A and HSPA1B chaperone proteins and promotes ubiquitin-mediated protein degradation. Negatively regulates the suppressive function of regulatory T-cells (Treg) during inflammation by

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mediating the ubiquitination and degradation of FOXP3 in a HSPA1A/B-dependent manner. Likely mediates polyubiquitination and down-regulates plasma membrane expression of PD-L1/CD274, an immune inhibitory ligand critical for immune tolerance to self and antitumor immunity. Negatively regulates TGF-beta signaling by modulating the basal level of SMAD3 via ubiquitin-mediated degradation. May regulate myosin assembly in striated muscles together with UBE4B and VCP/p97 by targeting myosin chaperone UNC45B for proteasomal degradation. Mediates ubiquitination of RIPK3 leading to its subsequent proteasome-dependent degradation.

Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	STUB1 STIP1 homology and U-box containing protein 1, E3 ubiquitin protein ligase [Homo sapiens (human)]
Official Symbol	STUB1

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Synonyms	STUB1; STIP1 homology and U-box containing protein 1, E3 ubiquitin protein ligase; STIP1 homology and U box containing protein 1; E3 ubiquitin-protein ligase CHIP; CHIP; HSPABP2; NY CO 7; SDCCAG7; UBOX1; antigen NY-CO-7; CLL-associated antigen KW-8; serologically defined colon cancer antigen 7; STIP1 homology and U box-containing protein 1; carboxy terminus of Hsp70-interacting protein; heat shock protein A binding protein 2 (c-terminal); NY-CO-7;
Gene ID	10273
mRNA Refseq	NM_005861
Protein Refseq	NP_005852
MIM	607207
UniProt ID	Q9UNE7