

STUB1 Protein, Human

Cat. No.:	HY-P71340
Synonyms:	E3 Ubiquitin-Protein Ligase CHIP; Antigen NY-CO-7; CLL-Associated Antigen KW-8; Carboxy Terminus of Hsp70-Interacting Protein; STIP1 Homology and U Box-Containing Protein 1; STUB1; CHIP
Species:	Human
Source:	E. coli
Accession:	Q9UNE7 (M1-Y303)
Gene ID:	10273
Molecular Weight:	Approximately 33.0 kDa

PROPERTIES

AA Sequence	<pre> MKGKEEKEGG ARLGAGGGSP EKSPSAQELK EQGNRLFVGR KYPEAAACYG RAITRNPLVA VYYTNRALCY LKMQQHEQAL ADCRRALELD GQSVKAHFFL GQCQLEMESY DEAIANLQRA YSLAKEQRLN FGDDIPsALR IAKKKRWNSI EERRIHQESE LHSYLSRLIA AERERELEEC QRNHEGDEDD SHVRAQQACI EAKHDKYMAD MDELFSQVDE KRKKRDIPTY LCGKISFELM REPCITPSGI TYDRKDI EEH LQRVGHFDPV TRSPLTQEQL IPNLAMKEVI DAFISENGWV EDY </pre>
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year from date of receipt. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	STUB1 Protein, an E3 ubiquitin-protein ligase, plays a pivotal role in targeting misfolded chaperone substrates for proteasomal degradation, collaborating with ATXN3 to regulate the ubiquitin chain length attached to STUB1 substrates and prevent further chain extension. It ubiquitinates NOS1 in conjunction with Hsp70 and Hsp40, modulating the activity of key chaperone complexes such as Hsp70, Hsc70, and Hsp90. Additionally, STUB1 mediates the transfer of non-canonical short ubiquitin chains to HSPA8 without affecting its degradation. The protein is involved in base-excision repair by
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catalyzing polyubiquitination of DNA polymerase beta (POLB), amplifying the HUWE1/ARF-BP1-dependent monoubiquitination and leading to POLB degradation. STUB1 also participates in the polyubiquitination of CYP3A4, ubiquitinates EPHA2 to potentially regulate receptor stability, acts as a co-chaperone for HSPA1A and HSPA1B, and negatively regulates TGF-beta signaling by modulating SMAD3 levels via ubiquitin-mediated degradation. Furthermore, STUB1 contributes to the degradation of FOXP3, SIRT6, and RIPK3, and likely downregulates PD-L1/CD274 plasma membrane expression. Its diverse functions underscore its significance in cellular homeostasis and immune regulation.

Caution: Product has not been fully validated for medical applications. For research use only.

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