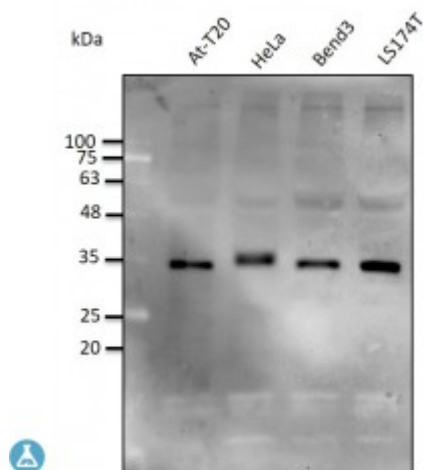


Anti-STUB1 antibody



Description

Goat polyclonal antibody to STUB1. STUB1 protein containing tetratricopeptide repeat and a U-box that functions as a ubiquitin ligase/cochaperone. It binds to and ubiquitinates shock cognate 71 kDa protein (Hspa8) and DNA polymerase beta (Polb), among other targets.

Model

STJ140143

Host

Goat

Reactivity

Avian, Bovine, Canine, Donkey, Feline, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Other, Porcine, Rabbit, Rat, Sheep, Simian

Applications

WB

Immunogen

Recombinant human STUB1 protein produced in E. coli.

Gene ID

[10273](#)

Gene Symbol

[STUB1](#)

Dilution range

Western blot 1:500-1:5,000 Immunofluorescence ND Immunohistochemistry (paraffin) ND Immunohistochemistry (frozen) ND

Specificity

Detects endogenous levels of STUB1 by Western blot.

Tissue Specificity

Highly expressed in skeletal muscle, heart, pancreas, brain and placenta. Detected in kidney, liver and lung.

Purification

This antibody is epitope-affinity purified from goat antiserum.

Note

For research use only (RUO).

Protein Name

E3 ubiquitin-protein ligase CHIP (EC 2.3.2.27) (Antigen NY-CO-7) (CLL-associated antigen KW-8) (Carboxy terminus of Hsp70-interacting protein) (RING-type E3 ubiquitin transferase CHIP) (STIP1 homology and U box-

	containing protein 1)
Molecular Weight	35 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS, 20% glycerol and 0.05% sodium azide.
Concentration	3 mg/mL
Storage Instruction	Store at -20°, and avoid repeated freeze-thaw cycles.
Database Links	HGNC:11427 OMIM:607207
Alternative Names	E3 ubiquitin-protein ligase CHIP (EC 2.3.2.27) (Antigen NY-CO-7) (CLL-associated antigen KW-8) (Carboxy terminus of Hsp70-interacting protein) (RING-type E3 ubiquitin transferase CHIP) (STIP1 homology and U box-containing protein 1)
Function	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 mediating the ubiquitination and degradation of FOXP3 in a HSPA1A/B-dependent manner . Negatively regulates TGF-beta signaling by modulating the basal level of SMAD3 via ubiquitin-mediated degradation .
Sequence and Domain Family	The U-box domain is required for the ubiquitin protein ligase activity. The TPR domain is essential for ubiquitination mediated by UBE2D1.
Cellular Localization	Cytoplasm Nucleus. Translocates to the nucleus in response to inflammatory signals in regulatory T-cells (Treg).
Post-translational Modifications	Monoubiquitinated at Lys-2 following cell stress by UBE2W, promoting the interaction with ATXN3 . Auto-ubiquitinated; mediated by UBE2D1 and UBE2D2.