

Anti-CHIP antibody



Description Unconjugated Rabbit polyclonal to CHIP

Model STJ192459

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, WB

Immunogen Synthesized peptide derived from human CHIP protein.

Immunogen Region 160-240aa

Gene ID <u>10273</u>

Gene Symbol STUB1

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity CHIP Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity Highly expressed in skeletal muscle, heart, pancreas, brain and placenta.

Detected in kidney, liver and lung.

Purification CHIP antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name E3 ubiquitin-protein ligase CHIP 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 33 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:114270MIM:607207

Alternative Names E3 ubiquitin-protein ligase CHIP 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.