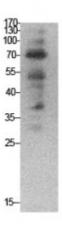


Anti-Ub antibody





Description

Ub is a protein encoded by the UBA52 gene which is approximately 14,7 kDa. Ub is localised to the cytoplasm and nucleus. It is involved in CDK-mediated phosphorylation and removal of Cdc6, RET signalling, activated TLR4 signalling, viral mRNA translation and the HIV life cycle. Ubiquitin exists either covalently attached to another protein, or free. When attached to a target protein, it has different functions depending on the Lys residue of the ubiquitin that is linked to. These functions including DNA repair and cell cycle regulation. Ub is expressed in the blood, nervous system, adrenal gland, muscle and liver. Mutations in the UBA52 gene may result in stomatitis. STJ96863 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of Ub protein.

Model STJ96863

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human Ub.

Immunogen Region N-terminal

Gene ID 7311

Gene Symbol <u>UBA52</u>

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

Specificity Ub Polyclonal Antibody detects endogenous levels of Ub protein.

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

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Ubiquitin-60S ribosomal protein L40 CEP52 Ubiquitin A-52 residue

ribosomal protein fusion product 1 Ubiquitin 60S ribosomal protein L40

Large ribosomal subunit protein eL40

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

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

Database Links <u>HGNC:12458OMIM:191321</u>

Alternative Names Ubiquitin-60S ribosomal protein L40 CEP52 Ubiquitin A-52 residue

ribosomal protein fusion product 1 Ubiquitin 60S ribosomal protein L40

Large ribosomal subunit protein eL40

Function Ubiquitin: Exists either covalently attached to another protein, or free

(unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11-linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell-cycle regulation; Lys-29-linked is involved in lysosomal degradation; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via

conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling.; 60S ribosomal protein L40: Component of the 60S subunit of the ribosome. Ribosomal protein L40 is essential for translation of a subset of cellular transcripts, and especially for cap-dependent

attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases,

translation of vesicular stomatitis virus mRNAs.

Cellular Localization Ubiquitin: Cytoplasm Nucleus 60S ribosomal protein L40: Cytoplasm

Post-translational Ubiquitin: Phosphorylated at Ser-65 by PINK1 during mitophagy. **Modifications** Phosphorylated ubiquitin specifically binds and activates parkin (Pl

Phosphorylated ubiquitin specifically binds and activates parkin (PRKN), triggering mitophagy . Phosphorylation does not affect E1-mediated E2 charging of ubiquitin but affects discharging of E2 enzymes to form polyubiquitin chains. It also affects deubiquitination by deubiquitinase

enzymes such as USP30.

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