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Anti-Ub Antibody

Catalog # AP51595

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P0CG47
Other Accession	P0CG48, P62979, P62987
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Chicken, Bovine, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	25762

Additional Information

Gene ID	7314
Other Names	UBB; Polyubiquitin-B; UBC; Polyubiquitin-C; RPS27A; UBA80; UBCEP1; Ubiquitin-40S ribosomal protein S27a; Ubiquitin carboxyl extension protein 80; UBA52; UBCEP2; Ubiquitin-60S ribosomal protein L40; CEP52; Ubiquitin A-52 residue ribosomal protein fusion product 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Ub. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	UBB
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 proteotoxic stress response and cell cycle; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved

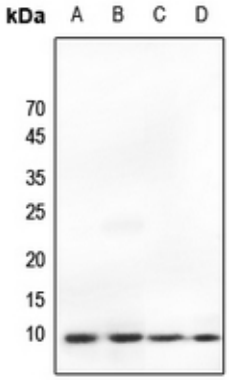
in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, 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.

Cellular Location [Ubiquitin]: Cytoplasm. Nucleus. Mitochondrion outer membrane; Peripheral membrane protein

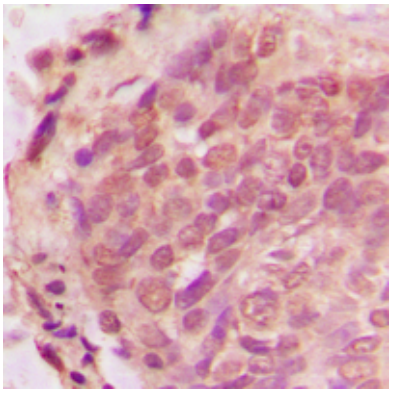
References

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Zody M.C.,et al.Nature 440:1045-1049(2006).
Lubec G.,et al.Submitted (DEC-2008) to UniProtKB.
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Images

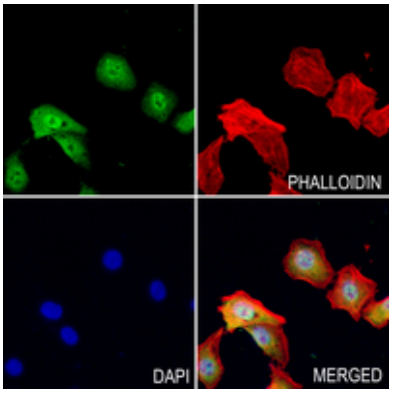


Western blot analysis of Ub expression in mouse liver (A), mouse testis (B), rat liver (C), rat testis (D) whole cell lysates. (Predicted band size: 25; 77; 17; 14 kD; Observed band size: 9 kD)



Immunohistochemical analysis of Ub staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of Ub staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was



used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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