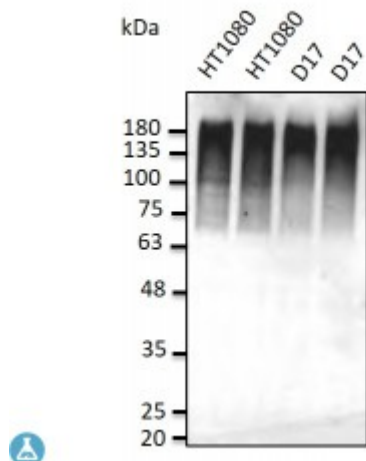


Anti-Ubiquitin antibody



Description

Goat polyclonal antibody to Ubiquitin. Ubiquitin is a highly conserved of about 8.5 kDa regulatory protein expressed in all eukaryotic tissues. Its function is labelling of proteins for degradation through ubiquitin proteasome system. In order to perform this function, the protein to be degraded is first covalently attached to the C terminus of ubiquitin, and a complex of degradative enzymes then recognizes the ubiquitinated complex.

Model	STJ140085
Host	Goat
Reactivity	Avian, Bovine, Canine, Donkey, Feline, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Other, Porcine, Rabbit, Rat, Sheep, Simian
Applications	WB
Immunogen	Purified recombinant human ubiquitin (MQIFVKLTITGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRRLGG) produced in E. coli.
Gene ID	7314
Gene Symbol	UBB
Dilution range	Western blot 1:500-1:2,000 Immunofluorescence ND Immunohistochemistry (paraffin) ND Immunohistochemistry (frozen) ND
Specificity	Using the recombinant human ubiquitin gives a positive signal by Western blot.
Purification	This antibody is epitope-affinity purified from goat antiserum.
Note	For research use only (RUO).

Protein Name	Polyubiquitin-B [Cleaved into: Ubiquitin]
Molecular Weight	26 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:12463OMIM:191339
Alternative Names	Polyubiquitin-B [Cleaved into: Ubiquitin]
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 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 Localization	Ubiquitin: Cytoplasm Nucleus
Post-translational Modifications	Ubiquitin: Phosphorylated at Ser-65 by PINK1 during mitophagy. 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 .