

UBB Antibody (N-term) Blocking Peptide

Synthetic peptide Catalog # BP13217a

Specification

UBB Antibody (N-term) Blocking Peptide - Product Information

Primary Accession

P0CG47

UBB Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 7314

Other Names

Polyubiquitin-B, Ubiquitin, UBB

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13217a was selected from the N-term region of UBB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

UBB Antibody (N-term) Blocking Peptide - 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

UBB Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

• Blocking Peptides

UBB Antibody (N-term) Blocking Peptide - Images

UBB Antibody (N-term) Blocking Peptide - Background

This gene encodes ubiquitin, one of the most conserved proteins known. Ubiquitin is required for ATP-dependent, nonlysosomal intracellular protein degradation of abnormal proteins and normal proteins with a rapid turnover. Ubiquitin is covalently bound to proteins to be degraded, and presumably labels these proteins for degradation. Ubiquitin also binds to histone H2A inactively transcribed regions but does not cause histone H2A degradation, suggesting that ubiquitin is also involved in regulation of gene expression. This gene consists of three directrepeats of the ubiquitin coding sequence with no spacer sequence. Consequently, the protein is expressed as a polyubiquitin precursor with a final amino acid after the last repeat. Aberrant form of this protein has been noticed in patients with Alzheimer's and Downsyndrome.

UBB Antibody (N-term) Blocking Peptide - References

Komander, D. Biochem. Soc. Trans. 37 (PT 5), 937-953 (2009) :Choudhary, C., et al. Science 325(5942):834-840(2009)Tank, E.M., et al. PLoS Genet. 5 (2), E1000382 (2009) :Motegi, A., et al. Proc. Natl. Acad. Sci. U.S.A. 105(34):12411-12416(2008)Sugiura, T., et al. Exp. Cell Res. 314(7):1519-1528(2008)