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E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP2113c

Specification

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - Product Information

Primary Accession	P22314
Other Accession	UBA1_HUMAN

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - Additional Information

Gene ID 7317

Other Names
Ubiquitin-like modifier-activating enzyme 1, Protein A1S9, Ubiquitin-activating enzyme E1, UBA1, A1S9T, UBE1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2113c was selected from the Center region of human UBE1 . 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.

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - Protein Information

Name UBA1

Synonyms A1S9T, UBE1

Function
Catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation through the ubiquitin-proteasome system (PubMed:1447181, PubMed:1606621, PubMed:33108101). Activates ubiquitin by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding a ubiquitin-E1 thioester and free AMP (PubMed:1447181). Essential for

the formation of radiation-induced foci, timely DNA repair and for response to replication stress. Promotes the recruitment of TP53BP1 and BRCA1 at DNA damage sites (PubMed:22456334).

Cellular Location
Cytoplasm. Mitochondrion. Nucleus [Isoform 2]: Cytoplasm

Tissue Location
Detected in erythrocytes (at protein level). Ubiquitous.

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - Images

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - Background

UBE1 catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation. This gene complements an X-linked mouse temperature-sensitive defect in DNA synthesis, and thus may function in DNA repair. It is part of a gene cluster on chromosome Xp11.23. Alternative splicing results in 2 transcript variants encoding the same protein, but with different 5' UTR.

E1 Ubiquitin (UBE1) Antibody (Center) Blocking peptide - References

Ayusawa, D., et al., Cell Struct. Funct. 17(2):113-122 (1992).Handley, P.M., et al., Proc. Natl. Acad. Sci. U.S.A. 88(1):258-262 (1991).Kudo, M., et al., Exp. Cell Res. 192(1):110-117 (1991).Zacksenhaus, E., et al., Cytogenet. Cell Genet. 53(1):20-22 (1990).Zacksenhaus, E., et al., EMBO J. 9(9):2923-2929 (1990).