

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](/product/products/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: [1606621](http://www.uniprot.org/citations/1606621), PubMed: [1447181](http://www.uniprot.org/citations/1447181), PubMed: [33108101](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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).