

#### E1 Ubiquitin (UBE1) Antibody (C-term) Blocking peptide Synthetic peptide Catalog # BP2113b

#### Specification

# E1 Ubiquitin (UBE1) Antibody (C-term) Blocking peptide - Product Information

Primary Accession Other Accession <u>P22314</u> <u>UBA1\_HUMAN</u>

#### E1 Ubiquitin (UBE1) Antibody (C-term) 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 <a href=/product/products/AP2113b>AP2113b</a> was selected from the C-term 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 (C-term) 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:<a href="http://www.uniprot.org/citations/1447181" target="\_blank">1447181</a>, PubMed:<a href="http://www.uniprot.org/citations/1606621" target="\_blank">1606621</a>, PubMed:<a href="http://www.uniprot.org/citations/33108101" target="\_blank">33108101</a>). 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:<a href="http://www.uniprot.org/citations/3108101" target="\_blank">1447181</a>). Eccontial for

href="http://www.uniprot.org/citations/1447181" target="\_blank">1447181</a>). 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:<a href="http://www.uniprot.org/citations/22456334" target=" blank">22456334</a>).

# Cellular Location

Cytoplasm. Mitochondrion. Nucleus [Isoform 2]: Cytoplasm

Tissue Location

Detected in erythrocytes (at protein level). Ubiquitous.

# E1 Ubiquitin (UBE1) Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides
- E1 Ubiquitin (UBE1) Antibody (C-term) Blocking peptide Images

## E1 Ubiquitin (UBE1) Antibody (C-term) 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 (C-term) 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).