

Ubiquitin-conjugating enzyme E2 variant 1A (UEV1A), Recombinant Protein

Cat *RP05387*

Size 0.02 mg (E-Coli)/ 0.1 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 1

mg (E-Coli)/ 0.1 mg (Baculovirus)/ 1 mg (Yeast)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)
Species Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant Arabidopsis thaliana Ubiquitin-conjugating enzyme E2 variant 1A (UEV1A)

Product Gene Name

UEV1A recombinant protein

Product Synonym Gene Name

UEV1A

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

MSSEAKVWV PRNFRLLLEEL ERGEKGIGDG TVSYGMDDAD DIYMQSWTGT ILGPPNTAYE GKIFQLKLFC
GKEYPESPPT VRFQTRINMA CVNPETGVVE PSLFPMLTNW RREYTMEDIL VKLKKEMMTS HNRKLAQPPE
GNEEARADPK GPAKCCVM

Sequence Positions

1-158, Full length protein

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

17,851 Da

Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week. Repeated freezing and thawing is not recommended.

Protein Family

Ubiquitin-conjugating enzyme

NCBI Accession

NP_564191.1

NCBI GI

18395221

NCBI GenBank Nucleotide

NM_102175.4

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI GeneID

838935

NCBI Official Full Name

MMS ZWEI homologue 1

NCBI Official Symbol

MMZ1

NCBI Official Synonym Symbols

F26F24.10; F26F24_10; MMS ZWEI homologue 1; UBIQUITIN E2 VARIANT 1A; UEV1A

NCBI Protein Information

MMS ZWEI homologue 1

NCBI Summary

MMZ1/UEV1A encodes a protein that may play a role in DNA damage responses and error-free post-replicative DNA repair by participating in lysine-63-based polyubiquitination reactions. UEV1A can form diubiquitin and triubiquitin chains in combination with UBC13A/UBC35 in vitro. It can also functionally complement an mms2 mutation in budding yeast, both by increasing mms2 mutant viability in the presence of the DNA damaging agent MMS, and by reducing the rate of spontaneous DNA mutation. However, a combination of MMZ1/UEV1A and UBC13A do not do a good job of rescuing an mms2 ubc13 double mutant in yeast. MMZ1/UEV1A transcripts are found at low levels in most plant organs, but cannot be detected in the pollen. Transcript levels do not appear to be stress-inducible. The uev1a-1 mutant shows normal sensitivity to MMS in germination assays suggesting that UEV1A is not required for DNA damage tolerance during this developmental stage.

UniProt Gene Name

UEV1A

UniProt Synonym Gene Names

MMZ1; Ubc enzyme variant 1A

UniProt Protein Name

Ubiquitin-conjugating enzyme E2 variant 1A

UniProt Synonym Protein Names

Protein MMS ZWEI HOMOLOG 1

UniProt Primary Accession

Q93YP0

UniProt Secondary Accession

Q9LR36

UniProt Related Accession

Q93YP0

UniProt Comments

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Has no ubiquitin ligase activity on its own. The heterodimer with UBC catalyzes the synthesis of non-canonical poly-ubiquitin chains that are linked through Lys 60. This type of poly-ubiquitination does not lead to protein degradation by the proteasome. Mediates transcriptional activation of target genes. May play a role in the control of progress through the cell cycle and differentiation. Probably not involved in the error-free DNA repair.

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