

## Human UBE2B

Catalog # PVGS1211

## **Product Information**

Primary Accession Sequence	P63146 MHHHHHAMG QLRSMSTPAR RRLMRDFKRL QEDPPVGVSG APSENNIMQW NAVIFGPEGT PFEDGTFKLV IEFSEEYPNK PPTVRFLSKM FHPNVYADGS ICLDILQNRW SPTYDVSSIL TSIQSLLDEP NPNSPANSQA AQLYQENKRE YEKRVSAIVE QSWNDS
Purity	> 95% as analyzed by SDS-PAGE&HPLC.
Endotoxin Level Formulation Reconstitution	yophilized after extensive dialysis against PBS. Reconstituted in $ddH_2O$ or PBS at 100 $\Box$ g/ml.

## **Additional Information**

Gene ID	7320
Other Names	Ubiquitin-conjugating enzyme E2 B, 2.3.2.23, E2 ubiquitin-conjugating enzyme B, RAD6 homolog B, HR6B, hHR6B, Ubiquitin carrier protein B, Ubiquitin-conjugating enzyme E2-17 kDa, Ubiquitin-protein ligase B, UBE2B (HGNC:12473)
Target Background	Ubiquitinconjugating Enzyme E2 B (UBE2B), also referred to as Homolog of Rad6B (HR6B), is a member of the Ubiquitinconjugating (E2) enzyme family. It has apredicted molecular weight of 17 kDa, and is highly expressed in the brain, heart, andtestis. UBE2B forms a thioester bond with ubiquitin through a cysteine residue in its catalytic core domain.Studies indicate that UBE2B may play a critical role in male fertility and overexpression may be linked to certain types of cancer. Recombinant Human UBE2B produced in E. coli cells is a single non-glycosylated polypeptide chain containing 159 amino acids. A fully biologically active molecule, rhUBE2B has a molecular mass of 18.3 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at .

## **Protein Information**

Name	UBE2B ( <u>HGNC:12473</u> )
Function	E2 ubiquitin-conjugating enzyme that accepts ubiquitin from the ubiquitin-activating enzyme E1 and transfers it to a E3 ubiquitin- protein ligase (PubMed: <u>16337599</u> , PubMed: <u>17108083</u> , PubMed: <u>17130289</u> , PubMed: <u>1717990</u> , PubMed: <u>20061386</u> ). In vitro catalyzes 'Lys-11'-, as well as

'Lys-48'- and 'Lys-63'-linked polyubiquitination (PubMed: 20061386). Together with the E3 enzyme BRE1 (RNF20 and/or RNF40), plays a role in transcription regulation by catalyzing the monoubiquitination of histone H2B at 'Lys-120' to form H2BK120ub1 (PubMed:<u>16337599</u>). H2BK120ub1 gives a specific tag for epigenetic transcriptional activation, elongation by RNA polymerase II, telomeric silencing, and is also a prerequisite for H3K4me and H3K79me formation (PubMed:16337599). May play a role in DNA repair (PubMed:<u>8062904</u>). Associates to the E3 ligase RAD18 to form the UBE2B-RAD18 ubiquitin ligase complex involved in mono-ubiquitination of DNA-associated PCNA on 'Lys-164' (PubMed:<u>17108083</u>, PubMed:<u>17130289</u>). In association with the E3 enzyme UBR4, is involved in N-end rule-dependent protein degradation (PubMed:<u>38182926</u>). May be involved in neurite outgrowth (By similarity). **Cellular Location** Cell membrane {ECO:0000250 | UniProtKB:P63149}. Nucleus {ECO:0000250|UniProtKB:P63149}. Note=In peripheral neurons, expressed both at the plasma membrane and in nuclei {ECO:0000250 | UniProtKB:P63149}

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