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MATERIAL DATA SHEET

Recombinant Human His6 UBE2W Isoform 2
Cat. # E2-725

Ubiquitin-conjugating Enzyme E2W (UBE2W), also known as Ubiquitin-conjugating Enzyme 16 (UBC16), is a member of the Ubiquitin-conjugating (E2) enzyme family (1). It has an E2 catalytic core domain with an active site cysteine residue that is required for the formation of a thioester bond with Ubiquitin (1,2). There are two isoforms of UBE2W, isoform 1 and isoform 2, with predicted molecular weights of 18.1 kDa and 19.5 kDa, respectively. UBE2W localizes to the nucleus where it promotes the mono-ubiquitination of BRCA1 and FANCD2, both of which contribute to DNA repair pathways (1-4). Mono-ubiquitination of the CHIP Ubiquitin ligase (E3), which has been reported to enhance its E3 ligase activity, is also mediated by UBE2W (5). This protein contains an N-terminal 6-His tag.

Product Information	
Quantity:	50 µg | 100 µg
MW:	19 kDa
Source:	*E. coli*-derived Contains an N-terminal 6-His tag Accession # Q96B02-2
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 200 mM NaCl, 10% Glycerol (v/v), 1 mM TCEP
Purity:	>90%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage

Use: Recombinant Human His6-UBE2W-2 is a member of the Ubiquitin-conjugating (E2) enzyme family that receives Ubiquitin from a Ubiquitin-activating (E1) enzyme and subsequently interacts with a Ubiquitin ligase (E3) to conjugate Ubiquitin to substrate proteins. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human His6-UBE2W-2 concentration of 0.1-1 µM.

Storage: **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

Literature

References:

1. Yin, G. *et al*. (2006) Front. Biosci. **11**:1500.
2. Alpi, A.F. *et al*. (2008) Mol. Cell **32**:767.
3. Christensen, D.E. *et al*. (2007) Nat. Struct. Mol. Biol. **14**:941.
4. Zhang, Y. *et al*. (2011) Mol. Cells **31**:113.
5. Scaglione, K.M. *et al*. (2011) Mol. Cell **43**:599.

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