UBE2V2

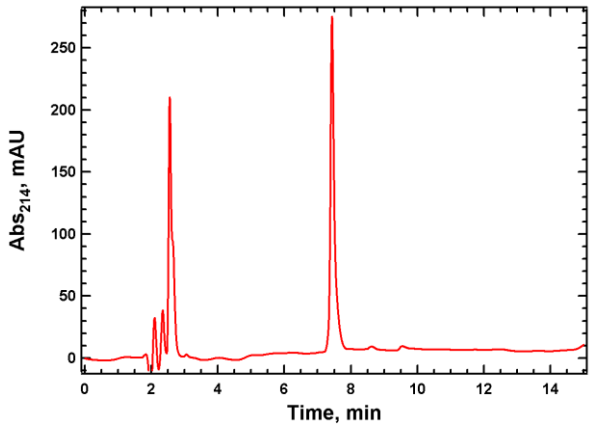
Cat. # UB220

Background: UBE2N (homologous to yeast Ubc13) is an E2 (ubiquitin conjugating enzyme) that is involved in the conjugation of ubiquitin to target substrates along with E1 and E3 enzymes. UBE2N acts with the UEV (ubiquitin E2 variant) protein UBE2V2 (MMS2, UEV-2) forming a heterodimeric complex that assembles K63-linked polyubiquitin chains utilized in non-degradative ubiquitin signaling pathways (DNA repair, signal transduction). The UEV proteins are structurally similar to E2 enzymes displaying the same fold, but lacking the active site cysteine of the E2. The UBE2N/UBE2V2 complex is unique in that it is has the ability to form free K63-linked polyubiquitin chains in solution in the absence of an E3.

Application: Ubiquitin ligation reactions

Product Information

Organism	Human, recombinant; Accession No. Q15819
Purity:	≥ 95% by RP-HPLC
Molecular Weight:	16363.1 Da by MS (calculated 16362.8)
Tag	none
Physical State:	Liquid, 25 mM Tris, pH 7.4; 150 mM NaCl; 10 mM DTT; 10% glycerol;
Quantity:	20 or 75 μL of a 40 μM solution (0.8 and 3 nmoles, respectively)
Solubility:	>3 mg/mL
Storage:	-80° C. Avoid repeated freeze/thaw cycles



RP-HPLC

References

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3. VanDemark, A.P., et al., Molecular insights into polyubiquitin chain assembly: crystal structure of the Mms2/Ubc13 heterodimer. *Cell* **105,** 711-20 (2001).

4. Moraes, T.F., et al., Crystal structure of the human ubiquitin conjugating enzyme complex, hMms2-hUbc13. *Nat Struct Biol* **8,** 669-73 (2001).

5. Eddins, M.J., et al., Mms2-Ubc13 covalently bound to ubiquitin reveals the structural basis of linkage-specific polyubiquitin chain formation. *Nat Struct Mol Biol* **13,** 915-20 (2006).