
MATERIAL DATA SHEET

Recombinant Human GST UbcH5c/UBE2D3**Cat. # E2-625**

Ubiquitin-conjugating Enzyme H5c (UbcH5c), also known as Ubiquitin-conjugating Enzyme E2D 3 (UBE2D3), is a member of the yeast Ubc4/5 family of Ubiquitin-conjugating (E2) enzymes. Human UbcH5c/UBE2D3 has a predicted molecular weight of 17 kDa and shares 88% and 89% amino acid sequence identity with the related family members, UbcH5a and UbcH5b, respectively. In combination with Ubiquitin ligases (E3s) such as CHIP, UbcH5c/UBE2D3 mediates the ubiquitination and subsequent degradation of several regulatory proteins (1). For instance, UbcH5c/UBE2D3 is involved in the poly-ubiquitination and proteasome-mediated degradation of the Nuclear Factor kappaB (NF-kappaB) inhibitor, I kappaB-alpha, and is implicated in NF-kappaB-dependent inflammation (2-4). UbcH5c/UBE2D3 also mediates the ubiquitination of Histone H2A and PCNA, suggesting that it functions during transcriptional regulation, DNA replication, and DNA damage responses (5-7).

Product Information

Quantity:	50 µg 100 µg
MW:	44 kDa
Source:	<i>E. coli</i> -derived Contains an N-terminal GST (glutathione S-transferase) tag Accession # P61077
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.0, 200 mM NaCl, 10% Glycerol, 1 mM TCEP
Purity:	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage

Use: Recombinant Human GST-UbcH5c/UBE2D3 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 GST-UbcH5c/UBE2D3 concentration of 0.1-1 μ M.

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. Page, R.C. *et al.* (2012) *Biochemistry* **51**:4175.
2. Gonen, H. *et al.* (1999) *J. Biol. Chem.* **274**:14823.
3. Shembade, N. *et al.* (2010) *Science* **327**:1135.
4. Xia, Z.P. *et al.* (2009) *Nature* **461**:114.
5. Zhang, S. *et al.* (2008) *Cell Cycle* **7**:3399.
6. Bentley, M.L. *et al.* (2011) *EMBO J.* **30**:3285.
7. Polanowska, J. *et al.* (2006) *EMBO J.* **25**:2178.

For research use only. Not for use in humans.