Recombinant Human/Mouse/Rat UbcH5c/UBE2D3

Catalog Number: E2-627

DESCRIPTION

Source	*E. coli*-derived UbcH5c/UBE2D3 protein Met1 - Met147 Accession # P61077.1
Predicted Molecular Mass	17 kDa

SPECIFICATIONS

Activity	Recombinant Human 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 UbcH5c/UBE2D3 concentration of 0.1-1 µM.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.
Formulation	Supplied as a solution in HEPES, NaCl, TCEP and Glycerol. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 6 months from date of receipt, -70 °C as supplied. • 3 months, -70 °C under sterile conditions after opening.

BACKGROUND

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, IkappaB-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).

References:

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7. Polanowska, J. *et al.* (2006) EMBO J. **25**:2178.

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