

MATERIAL DATA SHEET**GST-UbcH5a/UBE2D1, human recombinant****Cat. # E2-615**

Ubiquitin-conjugating Enzyme H5a (UbcH5a), also known as Ubiquitin-conjugating Enzyme E2D 1 (UBE2D1), is a ubiquitously expressed protein that is related to Stimulator of Iron Transport (SFT). Human UbcH5a/UBE2D1 has a predicted molecular weight of 17 kDa and shares 89% and 88% amino acid (aa) sequence identity with the related family members UbcH5b and UbcH5c, respectively. Human UbcH5a/UBE2D1 shares 100% aa sequence identity with the mouse and rat orthologs. UbcH5a/UBE2D1 has a conserved E2 catalytic core domain that contains an active site cysteine residue, and it interacts with a variety of HECT and RING finger Ubiquitin ligases (E3) to mediate the ubiquitination of specific target proteins. UbcH5a/UBE2D1 interacts with the E3, E6-AP, to conjugate Ubiquitin to the tumor suppressor, p53. Additional protein targets of UbcH5a/UBE2D1 include c-Fos, RIP1, and HIF-1. Pathologically, UbcH5a/UBE2D1 is implicated in protein degradation during cancer and immune responses. This protein has an amino-terminal GST tag.

Product Information

Quantity:	50 µg
Stock:	X mg/ml (X µM) in 50 mM Hepes, pH 8.0, 200 mM NaCl, 10% glycerol, and 1 mM TCEP
MW:	43 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage

Use:	Recombinant Human GST-UbcH5a/UBE2D1 is a member of the Ubiquitin-conjugating Enzyme (E2) family that receives Ubiquitin from a Ubiquitin-Activating Enzyme (E1) 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 GST-UbcH5a/UBE2D1 concentration of 0.1-1 µM.
Storage:	Store at -80°C. Avoid multiple freeze-thaw cycles.

Literature

- References:** Dynek, J. *et al.* (2010) EMBO J. **29**: 4128
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