Data Sheet (Cat.No.TMPY-02426)

TargetMol

UBE2D1 Protein, Human, Recombinant (His)

General Information

Synonyms:	UBC4/5;E2(17)KB1;ubiquitin-conjugating enzyme E2D 1;UBCH5;UBCH5A;SFT
Protein Construction:	A DNA sequence encoding the human UBE2D1 (P51668) (Ala 2-Met 147) was expressed, with a polyhistide tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P51668
Molecular Weight:	18.3 kDa (predicted); 16 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Supplied as sterile 25 mM Tris, 100 mM NaCl, 20% glycerol, 0.05% Tween.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Ubiquitin-conjugating enzyme E2 D1 (UBE2D1), a member of human E2 ubiquitin-conjugating enzymes, is closely related to SFT, which is short for stimulator of iron (Fe) transport. In other words, UbcH5A is significantly up-regulated in the liver of iron-overloaded patients with hereditary hemochromatosis, as previously published for SFT. Moreover, a complex of UBE2D1 is critical in maintaining KRAS protein stability and propose that targeting such complex may be a unique strategy to degrade mutant KRAS to kill cancer cells.

Reference

Zhang L,et al.(2011) The IDOL-UBE2D complex mediates sterol-dependent degradation of the LDL receptor. Genes Dev. 25(12): 1262-74.

Tokumoto M,et al.(2011) Cadmium toxicity is caused by accumulation of p53 through the down-regulation of Ube2d family genes in vitro and in vivo. J Toxicol Sci. 36(2): 191-200.

Ohbayashi N,et al.(2008) Physical and functional interactions between ZIP kinase and UbcH5. Biochem Biophys Res Commun. 372(4): 708-12.

Gehrke SG,et al.(2003) UbcH5A, a member of human E2 ubiquitin-conjugating enzymes, is closely related to SFT, a stimulator of iron transport, and is up-regulated in hereditary hemochromatosis. Blood. 101(8): 3288-93.

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