

Product datasheet for **TP307280L**

CDT2 (DTL) (NM_016448) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Homo sapiens denticleless homolog (Drosophila) (DTL), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC207280 protein sequence Red =Cloning site Green =Tags(s)

MLFNSVLRQPQLGVLNRNGWSSQYPLQSLLTGYQCSGNDEHTSYGETGVPVPPFGCTFSSAPNMEHVLAVA
NEEGFVRLYNTESQSFRKKCFKEWMAHWNVFDLAWVPGELKLVTAAGDQTAKFWDVKAGELIGTCKGHQ
CSLKSVAFSKFEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNQISGAHNNTSDKQTPSKPKKKQNSKGLA
PSVDFQQSVTVVLFQDENTLVSAGAVDGIKVVWDLRKNYAYRQEPIASKSFLYPGSSTRKLGYSLLILD
STGSTLFANCTDDNIYMFNMTGLKTSVAIFNGHQNSTFVVKSSLSPPDDQFLVSGSSDEAAYIWKVSTPW
QPPTVLLGHSQEVTSVCWCPSDFTKIATCSDNTLKIWRNLNRGLEEKPGGDKLSTVGWASQKKKESRPL
VTVTSSQSTPAKAPRVKCNPSNSSPSSAACAPSCAGDLPLPSNTPTFSIKTPAKARSPINRRGSVSSVS
PKPPSSFKMSIRNWWTRTPSSSPITPPASETKIMSPRKALIPVSQKSSQAEACSESRRNRVRRRLDSSCL
ESVKQKCVKSCNCVTELDGQVENLHLDLCLAGNQEDLSKDSLGPTKSSKIEGAGTSISEPPSPISPYAS
ESCGTLPLRPCGEGSEMVGKENSSPENKNWLLAMAARKAENPSRSPSSQTPNSRRQSGKTLPSVPT
ITPSSMRKICTYFHRKSQEDFCGPEHSTEL

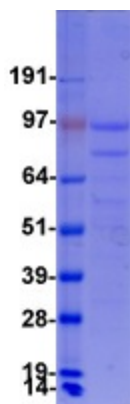
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	79.3 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.



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Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_057532
Locus ID:	51514
UniProt ID:	Q9NZJ0
RefSeq Size:	4611
Cytogenetics:	1q32.3
RefSeq ORF:	2190
Synonyms:	CDT2; DCAF2; L2DTL; RAMP
Summary:	<p>Substrate-specific adapter of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex required for cell cycle control, DNA damage response and translesion DNA synthesis. The DCX(DTL) complex, also named CRL4(CDT2) complex, mediates the polyubiquitination and subsequent degradation of CDT1, CDKN1A/p21(CIP1), FBH1, KMT5A and SDE2 (PubMed:16861906, PubMed:16949367, PubMed:16964240, PubMed:17085480, PubMed:18703516, PubMed:18794347, PubMed:18794348, PubMed:19332548, PubMed:20129063, PubMed:23478441, PubMed:23478445, PubMed:23677613, PubMed:27906959). CDT1 degradation in response to DNA damage is necessary to ensure proper cell cycle regulation of DNA replication (PubMed:16861906, PubMed:16949367, PubMed:17085480). CDKN1A/p21(CIP1) degradation during S phase or following UV irradiation is essential to control replication licensing (PubMed:18794348, PubMed:19332548). KMT5A degradation is also important for a proper regulation of mechanisms such as TGF-beta signaling, cell cycle progression, DNA repair and cell migration (PubMed:23478445). Most substrates require their interaction with PCNA for their polyubiquitination: substrates interact with PCNA via their PIP-box, and those containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to their degradation. In undamaged proliferating cells, the DCX(DTL) complex also promotes the 'Lys-164' monoubiquitination of PCNA, thereby being involved in PCNA-dependent translesion DNA synthesis (PubMed:20129063, PubMed:23478441, PubMed:23478445, PubMed:23677613). The DDB1-CUL4A-DTL E3 ligase complex regulates the circadian clock function by mediating the ubiquitination and degradation of CRY1 (PubMed:26431207).[UniProtKB/Swiss-Prot Function]</p>
Protein Families:	Druggable Genome

Product images:

Coomassie blue staining of purified DTL protein (Cat# [TP307280]). The protein was produced from HEK293T cells transfected with DTL cDNA clone (Cat# [RC207280]) using MegaTran 2.0 (Cat# [TT210002]).