

CDT2 Rabbit mAb
Catalog # AP75251

Specification

CDT2 Rabbit mAb - Product Information

Application	WB, IHC-P
Primary Accession	Q9NZJ0
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	79468

CDT2 Rabbit mAb - Additional Information

Gene ID 51514

Other Names

DTL

Dilution

WB ~ 1/500-1/1000

IHC-P~~N/A

Format

50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.

Storage

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

CDT2 Rabbit mAb - Protein Information

Name DTL

Synonyms CDT2, CDW1, DCAF2, L2DTL, RAMP

Function

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:<a

[20129063](http://www.uniprot.org/citations/20129063), PubMed: [23478441](http://www.uniprot.org/citations/23478441), PubMed: [23478445](http://www.uniprot.org/citations/23478445), PubMed: [23677613](http://www.uniprot.org/citations/23677613), PubMed: [27906959](http://www.uniprot.org/citations/27906959)). CDT1 degradation in response to DNA damage is necessary to ensure proper cell cycle regulation of DNA replication (PubMed: [16861906](http://www.uniprot.org/citations/16861906), PubMed: [16949367](http://www.uniprot.org/citations/16949367), PubMed: [17085480](http://www.uniprot.org/citations/17085480)). CDKN1A/p21(CIP1) degradation during S phase or following UV irradiation is essential to control replication licensing (PubMed: [18794348](http://www.uniprot.org/citations/18794348), PubMed: [19332548](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/20129063), PubMed: [23478441](http://www.uniprot.org/citations/23478441), PubMed: [23478445](http://www.uniprot.org/citations/23478445), PubMed: [23677613](http://www.uniprot.org/citations/23677613)). The DDB1-CUL4A-DTL E3 ligase complex regulates the circadian clock function by mediating the ubiquitination and degradation of CRY1 (PubMed: [26431207](http://www.uniprot.org/citations/26431207)).

Cellular Location

Nucleus. Nucleus membrane; Peripheral membrane protein; Nucleoplasmic side. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome Note=Nuclear matrix-associated protein. Translocates from the interphase nucleus to the metaphase cytoplasm during mitosis

Tissue Location

Expressed in placenta and testis, very low expression seen in skeletal muscle. Detected in all hematopoietic tissues examined, with highest expression in thymus and bone marrow. A low level detected in the spleen and lymph node, and barely detectable level in the peripheral leukocytes. RA treatment down-regulated the expression in NT2 cell.

CDT2 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CDT2 Rabbit mAb - Images

