

## Product datasheet for **TA365619**

### CDT2 (DTL) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	IHC: 20-100 Positive control: Human thyroid cancer Predicted cell location: Cytoplasm
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein of human DTL
Formulation:	pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C.
Stability:	1 year
Gene Name:	denticleless E3 ubiquitin protein ligase homolog
Database Link:	<a href="#">Entrez Gene 51514 Human</a> <a href="#">Q9NZJ0</a>



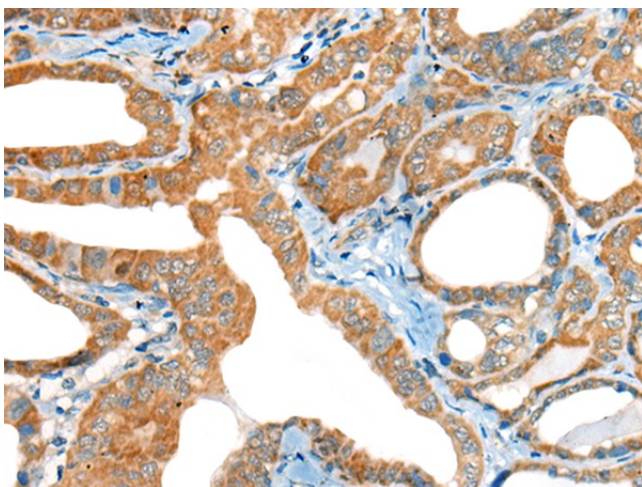
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**Background:**

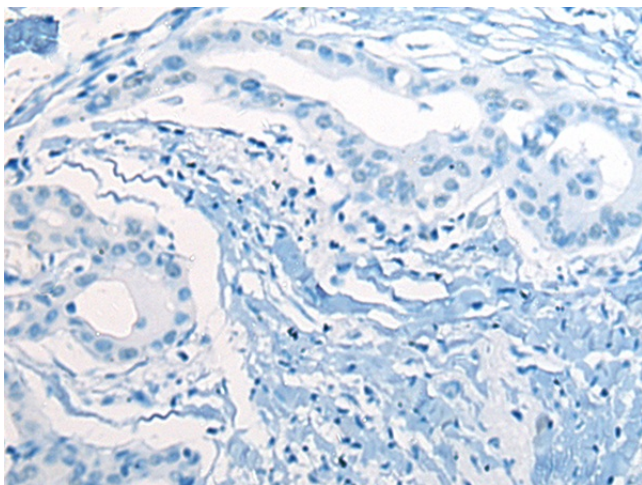
Substrate-specific adapter of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex required for cell cycle control, DNA damage response and translesion DNA synthesis. The DCX(DTL) complex, also named CRL4(CDT2) complex, mediates the polyubiquitination and subsequent degradation of CDT1, CDKN1A/p21(CIP1), FBXO18/FBH1 and KMT5A (PubMed:16861906, PubMed:16949367, PubMed:16964240, PubMed:17085480, PubMed:18703516, PubMed:18794347, PubMed:18794348, PubMed:19332548, PubMed:20129063, PubMed:23478441, PubMed:23478445, PubMed:23677613). 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).

**Synonyms:**

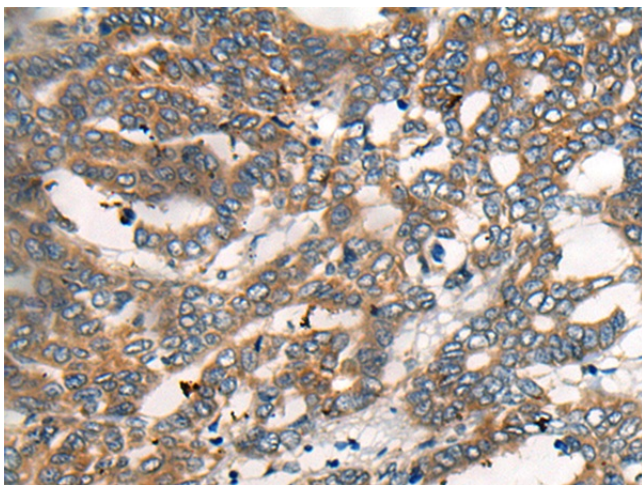
CDT2; CDW1; DCAF2; L2DTL; RAMP

**Product images:**

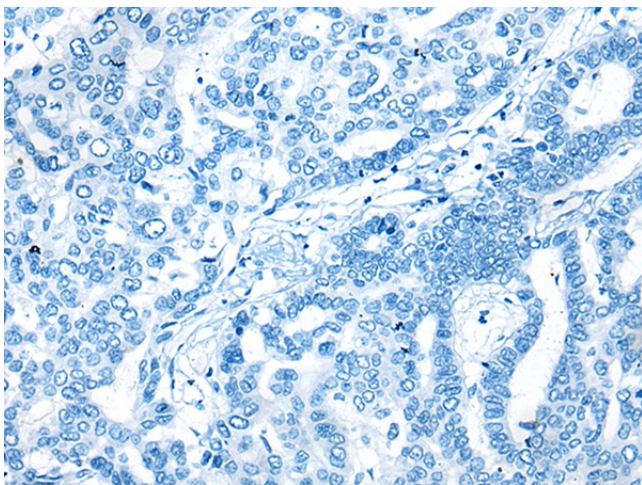
Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA365619 (DTL Antibody) at dilution 1/30 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA365619 (DTL Antibody) at dilution 1/30, treated with fusion protein. (Original magnification: ×200)



Immunohistochemistry of paraffin-embedded Human liver cancer tissue using TA365619 (DTL Antibody) at dilution 1/30 (Original magnification: ×200)



Immunohistochemistry of paraffin-embedded Human liver cancer tissue using TA365619 (DTL Antibody) at dilution 1/30, treated with fusion protein. (Original magnification: ×200)