# DTL Antibody

Catalog No: #46556

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## Description

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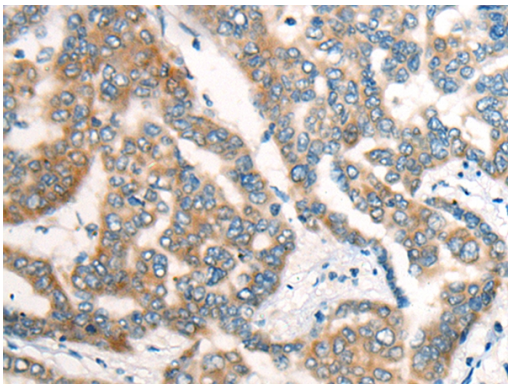
|---|---|
| Product Name | DTL Antibody |
| Host Species | Rabbit |
| Clonality | Polyclonal |
| Purification | Antigen affinity purification |
| Applications | IHC |
| Species Reactivity | Hu |
| Specificity | The antibody detects endogenous levels of total DTL protein. |
| Immunogen Type | peptide |
| Immunogen Description | Synthetic protein corresponding to residues near the C terminal of human DTL |
| Target Name | DTL |
| Other Names | CDT2; RAMP; DCAF2; L2DTL |
| Accession No. | Swiss-Prot:Q9NZJ0NCBI Gene ID:51514NCBI Protein:BC033540 |
| Uniprot | Q9NZJ0 |
| GeneID | 51514; |
| Concentration | 1.5mg/ml |
| Formulation | Rabbit IgG in pH7.4 PBS, 0.05% NaN3, 40% Glycerol. |
| Storage | Store at -20°C |

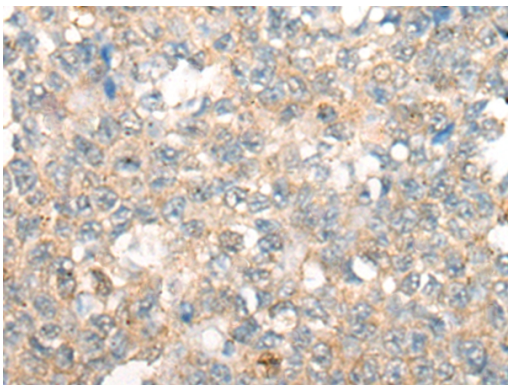
## Application Details

Immunohistochemistry: 1: 40-200

## Images



The image on the left is immunohistochemistry of paraffin-embedded Human liver cancer tissue using 46556(DTL Antibody) at dilution 1/60, on the right is treated with fusion protein. (Original magnification: x200)



The image on the left is immunohistochemistry of paraffin-embedded Human ovarian cancer tissue using 46556(DTL Antibody) at dilution 1/60, on the right is treated with fusion protein. (Original magnification: x200)

## 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).

Note: This product is for in vitro research use only