

Product datasheet for **TA384121M**

CDT2 (DTL) Rabbit Monoclonal Antibody [Clone ID: R03-2G4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R03-2G4
Applications:	IHC, WB
Recommended Dilution:	WB: 1/2000-1/10000 IHC: 1/20
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	Recombinant protein of human CDT2
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 80 kDa; Observed MW: 80 kDa
Gene Name:	denticleless E3 ubiquitin protein ligase homolog
Database Link:	Entrez Gene 51514 Human Q9NZJ0



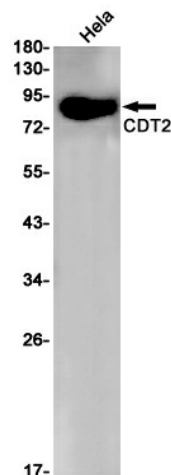
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Background:

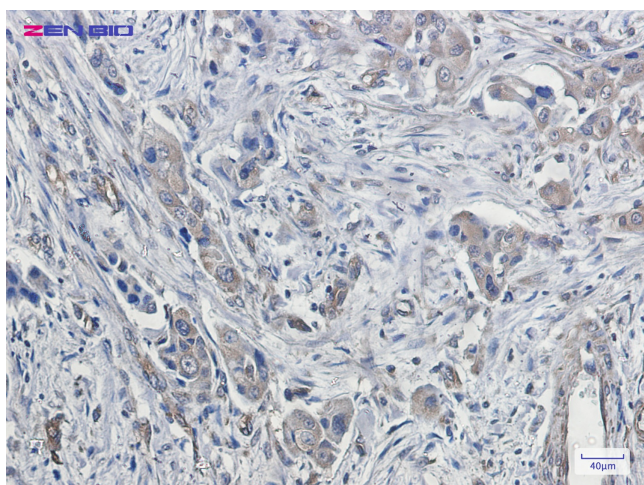
Swiss-Prot Acc.Q9NZJ0.Substrate-specific adapter of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex required for cell cycle control, DNA damage response and translesion DNA synthesis. The DCX(DTL) complex, also named CRL4(CDT2) complex, mediates the polyubiquitination and subsequent degradation 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).

Synonyms:

CDT2; CDW1; DCAF2; L2DTL; RAMP

Product images:


Western blot detection of CDT2 in HeLa cell lysates using CDT2 Rabbit mAb(1:1000 diluted).Predicted band size:80kDa.Observed band size:80kDa.



Immunohistochemistry of CDT2 in paraffin-embedded Human lung cancer tissue using CDT2 Rabbit mAb at dilution 1/20