

DCAF12 Rabbit pAb

Catalog # AP97925

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q5T6F0
Other Accession	Q5T6F0
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50517
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DCAF12/WDR40A
Epitope Specificity	231-330/453
Isotype	IgG
Purity	affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SIMILARITY Belongs to the WD repeat DCAF12 family. Contains 4 WD repeats.

SUBUNIT Interacts with DDB1.

Important Note This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. WDR40A (WD-repeat-containing protein 40A), also known as DDB1-CUL4-associated factor 12, is a 453 amino acid cytoplasmic protein that contains four WD-repeats. WDR40A is highly expressed in some cancer cell lines, lung cancer tissues and normal testis. A probable substrate receptor for CUL4-DDB1 E3 ubiquitin-protein ligase complex, WRD40A is suggested to interact with DDB1. WDR40A is encoded by a gene mapping to human chromosome 9p13.3. Human chromosome 9 houses over 900 genes and comprises nearly 4% of the human genome.

Additional Information

Gene ID	25853
Other Names	CT102; KIAA1892; TCC52; WDR40A; 1500001L20Rik; 5830424K06Rik; DCA12_HUMAN; DCAF12; Centrosome-related protein TCC52; Testis cancer centrosome-related protein; WD repeat-containing protein 40A; DCA12_MOUSE; DDB1 and CUL4 associated factor 12; WD repeat domain 40A; cancer/testis antigen 102
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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Protein Information

Name	DCAF12 {ECO:0000303 PubMed:16949367, ECO:0000312 HGNC:HGNC:19911}
Function	Substrate-recognition component of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed: 16949367 , PubMed: 16964240 , PubMed: 29779948). The C- degron recognized by the DesCEND pathway is usually a motif of less than ten residues and can be present in full-length proteins, truncated proteins or proteolytically cleaved forms (PubMed: 29779948). The DCX(DCAF12) complex specifically recognizes proteins with a diglutamate (Glu-Glu) at the C-terminus, such as MAGEA3, MAGEA6 and CCT5, leading to their ubiquitination and degradation (PubMed: 29779948 , PubMed: 31267705). Ubiquitination of MAGEA3, MAGEA6 by DCX(DCAF12) complex is required for starvation-induced autophagy (PubMed: 31267705). Also directly recognizes the C-terminal glutamate-leucine (Glu-Leu) degron as an alternative degron in proteins such as MOV10, leading to their ubiquitination and degradation. Controls the protein level of MOV10 during spermatogenesis and in T cells, especially after their activation (PubMed: 34065512).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus
Tissue Location	Highly expressed in lung cancer tissues and some cancer cell lines (PubMed:18957058). Restricted expression in normal testis (PubMed:18957058).

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