

DDB1 Mouse mAb

CatalogNo: YM1367

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat, Monkey

Applications

- WB

MW

- 127kD (Observed)

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:1000

Basic Information

Clonality Monoclonal

Clone Number 5G7

Immunogen Information

Immunogen Purified recombinant human DDB1 protein fragments expressed in E.coli.

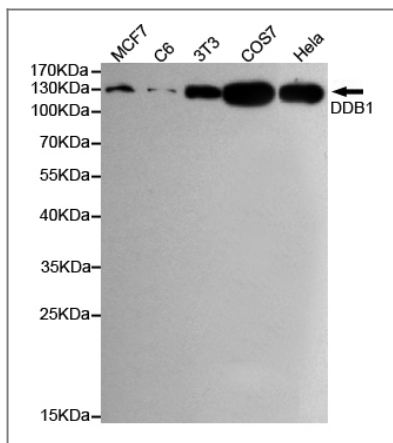
Specificity This antibody detects endogenous levels of DDB1 and does not cross-react with related proteins.

Target Information

Gene name ddb1

Protein Name	Organism	Gene ID	UniProt ID
	Human	1642;	Q16531;
	Mouse		Q3U1J4;
Cellular Localization	Cytoplasm . Nucleus . Primarily cytoplasmic (PubMed:10777491, PubMed:11673459). Translocates to the nucleus following UV irradiation and subsequently accumulates at sites of DNA damage (PubMed:10777491, PubMed:11673459) .		
Tissue specificity	Brain,Epidermis,Fetal lung,Peripheral blood,Placenta,Skin,		
Function	<p>Function:Required for DNA repair. Binds to DDB2 to form the UV-damaged DNA-binding protein complex (the UV-DDB complex). The UV-DDB complex may recognize UV-induced DNA damage and recruit proteins of the nucleotide excision repair pathway (the NER pathway) to initiate DNA repair. The UV-DDB complex preferentially binds to cyclobutane pyrimidine dimers (CPD), 6-4 photoproducts (6-4 PP), apurinic sites and short mismatches. Also appears to function as a component of numerous distinct DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins. The functional specificity of the DCX E3 ubiquitin-protein ligase complex is determined by the variable substrate recognition component recruited by DDB1. DCX(DDB2) (also known as DDB1-CUL4-ROC1, CUL4-DDB-ROC1 and CUL4-DDB-RBX1) may ubiquitinate histone H2A, histone H3 and histone H4 at sites of UV-induced DNA damage. The ubiquitination of histones may facilitate their removal from the nucleosome and promote subsequent DNA repair. DCX(DDB2) also ubiquitinates XPC, which may enhance DNA-binding by XPC and promote NER. DCX(DTL) plays a role in PCNA-dependent polyubiquitination of CDT1 and MDM2-dependent ubiquitination of TP53 in response to radiation-induced DNA damage and during DNA replication. DCX(ERCC8) (the CSA complex) plays a role in transcription-coupled repair (TCR). May also play a role in ubiquitination of CDKN1B/p27kip when associated with CUL4 and SKP2.,pathway:Protein modification; protein ubiquitination.,PTM:Ubiquitinated by CUL4A. Subsequently degraded by ubiquitin-dependent proteolysis.,similarity:Belongs to the DDB1 family.,subcellular location:Primarily cytoplasmic. Translocates to the nucleus following UV irradiation and subsequently accumulates at sites of DNA damage.,subunit:Component of the UV-DDB complex which includes DDB1 and DDB2. The UV-DDB complex interacts with monoubiquitinated histone H2A and binds to XPC via the DDB2 subunit. Component of numerous DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complexes which consist of a core of DDB1, CUL4A or CUL4B and RBX1. DDB1 may recruit specific substrate targeting subunits to the DCX complex. These substrate targeting subunits are generally known as DCAF (DDB1- and CUL4-associated factor) or CDW (CUL4-DDB1-associated WD40-repeat) proteins. Interacts with AMBRA1, ATG16L1, BTRC, C2ORF37, C4ORF30, DCAF15, DDA1, DET1, DTL, ERCC8, FBXW5, FBXW8, GRWD1, IQWD1, KATNB1, NLE1, NUP43, PAFAH1B1, PHIP, PWP1, RBBP4, RBBP5, RBBP7, RFWD2, SNRNP40, VPRBP, WDR5, WDR5B, WDR12, WDR21A, WDR22, WDR23, WDR26, WDR32, WDR39, WDR40A, WDR42, WDR42A, WDR53, WDR59, WDR61, WDR68, WSB1, WSB2 and WDTC1. DCX complexes may associate with the COP9 signalosome, and this inhibits the E3 ubiquitin-protein ligase activity of the complex. Interacts with NF2, TSC1 and TSC2. Interacts with Simian virus 5 protein V and the HBV X protein. Interaction with SV5 protein V may prevent the recruitment of DCAF proteins to DCX complexes.,</p>		

Validation Data



Western blot detection of DDB1 in HeLa, MCF7, COS7, C6 and 3T3 cell lysates using DDB1 mouse mAb (1:1000 diluted), with Super ECL. Predicted band size: 127KDa. Observed band size: 127KDa.

Contact information

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DDB1 Mouse mAb

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