

Rabbit DDB1 Polyclonal Antibody | anti-DDB1 antibody

DDB1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326841	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

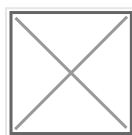
PRODUCT SYNONYMS

DDB1; Polyclonal Antibody; DDB1 Antibody; Damage-specific DNA-binding protein 1; DDB p127 subunit; Ddb1; DDB1_HUMAN; DDBa; DNA damage-binding protein 1; DNA damage-binding protein a; HBV X-associated protein 1; UV-damaged DNA-binding factor; UV-damaged DNA-binding protein 1; UV-DDB 1; XAP-1; Xeroderma pigmentosum group E-complementing protein; XPc; XPE-BF; XPE-binding factor; anti-DDB1 antibody

PRODUCT SPECIFICATIONS

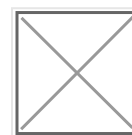
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	DDB1 antibody detects endogenous levels of total DDB1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1140
Applicable Applications for anti-DDB1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide of human DDB1
Subcellular Location	Cytoplasm. Nucleus. Primarily Cytoplasmic. Translocates to the nucleus following UV irradiation and subsequently accumulates at sites of DNA damage.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (100%), Rabbit (100%), Chicken (91%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

AAA326841 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)

AAA326841 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600 was used as secondary antibody.



WB (Western Blot)
Western blot analysis of HeLa whole cell lysates, using DDB1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-DDB1 antibody	Description: The protein encoded by this gene is the large subunit (p127) of the heterodimeric DNA damage-binding (DDB) complex while another protein (p48) forms the small subunit. This protein complex functions in nucleotide-excision repair and binds to DNA following UV damage. Defective activity of this complex causes the repair defect in patients with xeroderma pigmentosum complementation group E (XPE)-an autosomal recessive disorder characterized by photosensitivity and early onset of carcinomas. However, it remains for mutation analysis to demonstrate whether the defect in XPE patients is in this gene or the gene encoding the small subunit. In addition, Best vitelliform muscular dystrophy is mapped to the same region as this gene on 11q, but no sequence alternations of this gene are demonstrated in Best disease patients. The protein encoded by this gene also functions as an adaptor molecule for the cullin 4 (CUL4) ubiquitin E3 ligase complex by facilitating the binding of substrates to this complex and the ubiquitination of proteins. 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. Subunit Structure: Component of the UV-DDB complex which includes DDB1 and DDB2; the heterodimer dimerizes to give rise to a heterotetramer when bound to damaged DNA (PubMed:22822215). 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, CRBN, DCAF1, DCAF4, DCAF5, DCAF6, DCAF7, DCAF8, DCAF9, DCAF10, DCAF11, DCAF12, DCAF15, DCAF16, DCAF17, DDA1, DET1, DTL, ERCC8, FBXW5, FBXW8, GRWD1, KATNB1, NLE1, NUP43, PAFAH1B1, PHIP, PWP1, RBBP4, RBBP5, RBBP7, COP1, SNRNP40, DCAF1, WDR5, WDR5B, WDR12, WDR26, WDR39, WDR42, WDR53, WDR59, WDR61, WSB1, WSB2, LRWD1 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. Interaction with SV5 protein V may prevent the recruitment of DCAF proteins to DCX complexes. Interacts with AGO1 and AGO2. Associates with the E3 ligase complex containing DYRK2, EDD/UBR5, DDB1 and DCAF1 proteins (EDVP complex). Interacts directly with DYRK2. DCX(DTL) complex interacts with FBXO11; does not ubiquitinate and degrade FBXO11. Interacts with TRPC4AP (PubMed:19966799). Post-translational Modifications: Phosphorylated by ABL1. Ubiquitinated by CUL4A. Subsequently degraded by ubiquitin-dependent proteolysis. Similarity: The core of the protein consists of three WD40 beta-propeller domains. Belongs to the DDB1 family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	148529014
NCBI GeneID	1642
NCBI Accession #	NP_001914.3

NCBI GenBank Nucleotide #	NM_001923.4
UniProt Accession #	Q16531 ; O15176 ; Q13289 ; Q58F96 ; A6NG77 ; B2R648 ; B4DG00
Molecular Weight	Observed: 127 kDa Predicted: 127 kDa
NCBI Official Full Name	DNA damage-binding protein 1
NCBI Official Synonym Full Names	damage specific DNA binding protein 1
NCBI Official Symbol	DDB1
NCBI Official Synonym Symbols	XPE; DDBA; XAP1; XPCE; XPE-BF; UV-DDB1
NCBI Protein Information	DNA damage-binding protein 1
UniProt Protein Name	DNA damage-binding protein 1
UniProt Gene Name	DDB1
UniProt Synonym Gene Names	XAP1; DDBa; XAP-1; UV-DDB 1; XPE-BF; XPCE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ddb1-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326841>