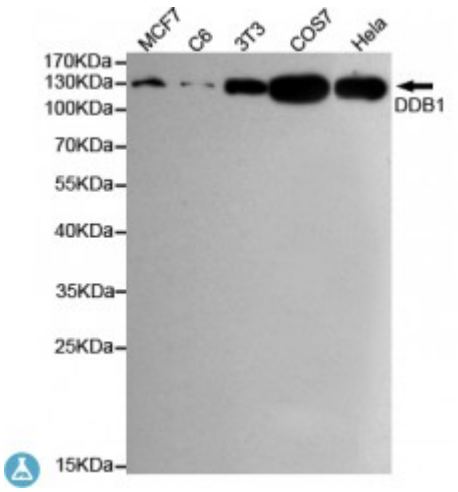
Anti-DDB1 antibody



Description	Mouse monoclonal to DDB1.

Model	STJ99189
Host	Mouse
Reactivity	Human, Mouse, Rat, Simian
Applications	ELISA, WB
Immunogen	Purified recombinant human DDB1 protein fragments expressed in E.coli.
Gene ID	1642
Gene Symbol	DDB1
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	This antibody detects endogenous levels of DDB1 and does not cross-react with related proteins.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clone ID	2D6-B5-E6
Note	For Research Use Only (RUO).
Protein Name	DNA damage-binding protein 1 DDB p127 subunit DNA damage-binding protein a DDBa Damage-specific DNA-binding protein 1 HBV X-associated protein 1 XAP-1 UV-damaged DNA-binding factor UV-damaged DNA-binding pro
Molecular Weight	127kDa

Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG2b
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:2717OMIM:600045
Alternative Names	DNA damage-binding protein 1 DDB p127 subunit DNA damage-binding protein a DDBa Damage-specific DNA-binding protein 1 HBV X-associated protein 1 XAP-1 UV-damaged DNA-binding factor UV-damaged DNA-binding pro
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.
Sequence and Domain Family	The core of the protein consists of three WD40 beta-propeller domains.
Cellular Localization	Cytoplasm. Nucleus. Primarily cytoplasmic. Translocates to the nucleus following UV irradiation and subsequently accumulates at sites of DNA damage.
Post-translational Modifications	Phosphorylated by ABL1. Ubiquitinated by CUL4A. Subsequently degraded by ubiquitin-dependent proteolysis.