

KD-Validated Anti-DDB2 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1130**Specification****KD-Validated Anti-DDB2 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q92466
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 48 kDa , observed, 45 kDa KDa
Gene Name	DDB2
Aliases	DDB2; Damage Specific DNA Binding Protein 2; UV-Damaged DNA-Binding Protein 2; DDB P48 Subunit; UV-DDB2; DDBB; XPE; Xeroderma Pigmentosum Group E Protein; DNA Damage-Binding Protein 2; FLJ34321; Damage-Specific DNA Binding Protein 2 (48kD); Damage-Specific DNA Binding Protein 2, 48kDa; Damage-Specific DNA-Binding Protein 2; UV-DDB; DDBb
Immunogen	A synthesized peptide derived from human DDB2

KD-Validated Anti-DDB2 Rabbit Monoclonal Antibody - Additional Information

Gene ID	1643
Other Names	
DNA damage-binding protein 2, DDB p48 subunit, DDBb, Damage-specific DNA-binding protein 2, UV-damaged DNA-binding protein 2, UV-DDB 2, DDB2	

KD-Validated Anti-DDB2 Rabbit Monoclonal Antibody - Protein Information**Name** DDB2**Function**

Protein, which is both involved in DNA repair and protein ubiquitination, as part of the UV-DDB complex and DCX (DDB1-CUL4-X-box) complexes, respectively (PubMed:10882109, PubMed:11278856, PubMed:11705987, PubMed:12732143, PubMed:15882621, PubMed:16473935, PubMed:18593899, PubMed:32789493, PubMed:9892649). Core component of the UV-DDB complex (UV-damaged DNA-binding protein complex), a complex that recognizes UV-induced DNA damage and recruit proteins of the nucleotide excision repair pathway (the NER pathway) to initiate DNA repair (PubMed:10882109, PubMed:11278856, PubMed:11705987, PubMed:12944386, PubMed:14751237, PubMed:16260596, PubMed:32789493). The UV-DDB complex preferentially binds to cyclobutane pyrimidine dimers (CPD), 6-4 photoproducts (6-4 PP), apurinic sites and short mismatches (PubMed:10882109, PubMed:11278856, PubMed:11705987, PubMed:12944386, PubMed:16260596). Also functions as the substrate recognition module for the DCX (DDB2-CUL4-X-box) E3 ubiquitin-protein ligase complex DDB2-CUL4-ROC1 (also known as CUL4-DDB-ROC1 and CUL4- DDB-RBX1) (PubMed:12732143, PubMed:15882621, PubMed:16473935, PubMed:18593899, PubMed:26572825). The DDB2-CUL4-ROC1 complex may ubiquitinate histone H2A, histone H3 and histone H4 at sites of UV- induced DNA damage (PubMed:16473935, PubMed:16678110). The ubiquitination of histones may facilitate their removal from the nucleosome and promote subsequent DNA repair (PubMed:16473935, PubMed:16678110). The DDB2-CUL4-ROC1 complex also ubiquitinates XPC, which may enhance DNA-binding by XPC and promote NER (PubMed:15882621). The DDB2-CUL4-ROC1 complex also ubiquitinates KAT7/HBO1 in response to DNA damage, leading to its degradation: recognizes KAT7/HBO1 following phosphorylation by ATR (PubMed:26572825).

Cellular Location

Nucleus. Chromosome. Note=Accumulates at sites of DNA damage following UV irradiation.

Tissue Location

Ubiquitously expressed; with highest levels in corneal endothelium and lowest levels in brain. Isoform D1 is highly expressed in brain and heart. Isoform D2, isoform D3 and isoform D4 are weakly expressed.

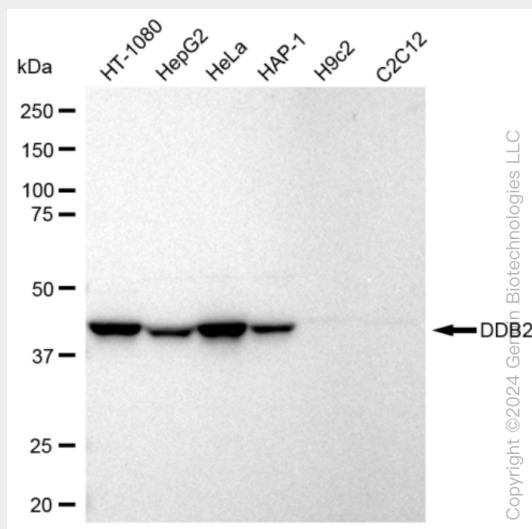
KD-Validated Anti-DDB2 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

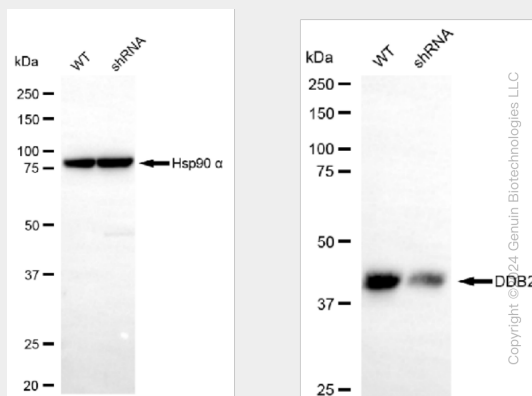
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

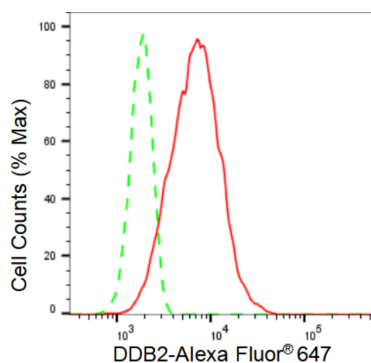
KD-Validated Anti-DDB2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-DDB2 antibody (Cat#AGI1130). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-DDB2 antibody (Cat#AGI1130, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

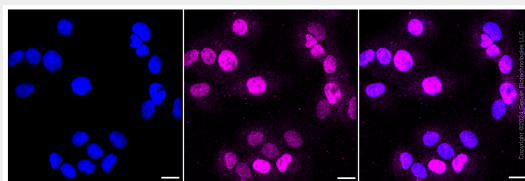


Western blotting analysis using anti-DDB2 antibody (Cat#AGI1130). DDB2 expression in wild type (WT) and DDB2 shRNA knockdown (KD) HeLa cells with 20 µg of Total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-DDB2 antibody (Cat#AGI1130, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



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Flow cytometric analysis of DDB2 expression in HT-1080 cells using DDB2 antibody (Cat#AGI1130, 1:2,000). Green, isotype control; red, DDB2.



Immunocytochemical staining of HT-1080 cells with DDB2 antibody (Cat#AGI1130, 1:1,000). Nuclei were stained blue with DAPI; DDB2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.