DDB1 monoclonal antibody

Catalog: MB66676 Host: Mouse Reactivity: Human, Mouse, Rat, Monkey

BackGround:

Damaged DNA-Binding Protein (DDB) consists of a 127 kDa subunit (DDB-1) and a 48 kDa subunit (DDB-2) that contribute to the formation of the UV-damaged DNA-binding protein complex (UV-DDB). In conjunction with CUL4A and ROC-1, the UV-DDB complex forms an E3 ubiquitin ligase that recognizes a broad spectrum of DNA lesions such as cyclobutane pyrimidine dimers, 6-4 photoproducts, apurinic sites and short mismatches. The complex polyubiquitinates components of the nucleotide excision repair pathway. Loss of DDB activity has been identified in a subset of xeroderma pigmentosum complementation group E (XP-E) patients and has been linked to the deficient repair of cyclobutane pyrimidine dimers in cells derived from these patients.

DDB-1 is a relatively abundant protein that is vital for normal cell function and is evolutionarily conserved in mammals, insects, worms and plants. Unlike DDB-2, lesions in DDB-1 have yet to be indentified in XP-E patients. In association with ROC-1 and CUL4A, DDB-1 functions to recruit substrate-specific targeting subunits, generally known as DCAFs or CDWs, to CUL4-RING E3 ubiquitin-protein ligase complexes. Ubiquitination of histone H2A, histone H3 and histone H4 at sites of UV-induced DNA damage by the DDB1-DDB2-CUL4A-ROC1 E3 ubiquitin-protein ligase complex may facilitate their removal from the nucleosome in order to promote DNA repair. DDB-1, in association with other CUL4-based E3 ligase complexes, has also been found to be a regulator of mTOR signaling.

Product:

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Molecular Weight:

~ 127 kDa

Swiss-Prot:

Q16531

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000)

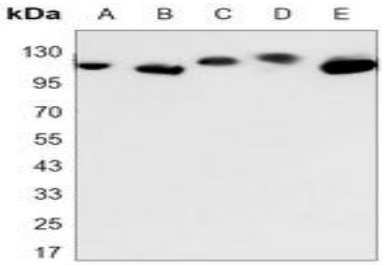
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of DDB1 protein.

DATA:



Western blot analysis of DDB1 expression in Hela (A), MCF7 (B), COS7 (C), C6 (D), NIH3T3 (E) whole cell lysates.

Note:

For research use only, not for use in diagnostic procedure.

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