

Recombinant Full Length Human damage specific DNA binding protein 1 Protein, GST tagged

Cat. No. DDB1-33HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human DDB1 was expressed by baculovirus in Sf9 insect cells using N-terminal GST tag.
Species	Human
Source	Insect cells
ProteinLength	1-1140aa
Description	DDB1, or DNA damage-binding protein 1, is a crucial component of the CUL4-RING E3 ubiquitin ligase (CRL4) complex, playing a central role in DNA repair, cell cycle regulation and chromatin remodeling. The CRL4-DDB1 complex is involved in the ubiquitin mediated proteolysis of target proteins, thereby regulating their stability and influencing diverse cellular functions. DDB1 was initially identified for its ability to bind to DNA lesions induced by UV radiation, and it was later found to be a key adaptor protein that links CUL4A/B scaffold proteins to the substrate receptor DDB2. This interaction facilitates the recruitment of specific target proteins to the CRL4 complex for ubiquitination and subsequent degradation. DDB1 has also been implicated in the recognition and repair of various types of DNA damage, including UV induced lesions and DNA interstrand crosslinks.
Tag	N-GST
Purity	> 75%

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Stability	1yr at –70 centigrade from date of shipment.
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Storage Buffer	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 25% glycerol.
Concentration	0.1 µg/µL
Shipping	Dry ice
References	1. Sugasawa K, Okuda Y, Saijo M, et al. UV-induced ubiquitylation of XPC protein mediated by UV-DDB-ubiquitin ligase complex. Cell. 2005;121(3):387-400. 2. He YJ, McCall CM, Hu J, et al. DDB1 functions as a linker to recruit receptor WD40 proteins to CUL4-ROC1 ubiquitin ligases. Genes Dev. 2006;20(21):2949-2954. 3. Jin J, Arias EE, Chen J, Harper JW, Walter JC. A family of diverse Cul4-Ddb1-interacting proteins includes Cdt2, which is required for S phase destruction of the replication factor Cdt1. Mol Cell. 2006;23(5):709-721.

GENE INFORMATION

Gene Name	DDB1 damage specific DNA binding protein 1 [Homo sapiens (human)]
Official Symbol	DDB1
Synonyms	DDB1; damage-specific DNA binding protein 1, 127kDa; damage specific DNA binding protein 1 (127kD); DNA damage-binding protein 1; XPE; XAP-1; UV-DDB 1; DDB p127 subunit; XPE-binding factor; HBV X-associated protein 1; DNA damage-

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binding protein a; UV-damaged DNA-binding factor; UV-damaged DNA-binding protein 1; damage-specific DNA-binding protein 1; xeroderma pigmentosum group E-complementing protein; DDBA; XAP1; XPCE; XPE-BF; UV-DDB1;

Gene ID 1642

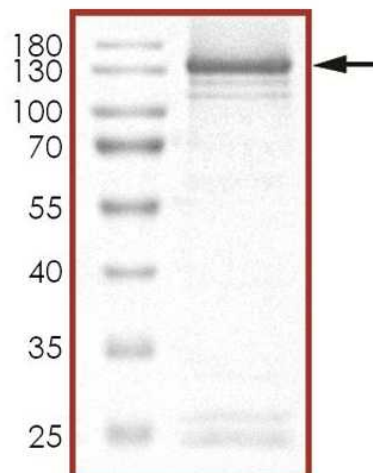
mRNA Refseq NM_001923

Protein Refseq NP_001914

MIM 600045

UniProt ID Q16531

Purity



The purity of CRBN/DDB1 was determined to be > 75% by densitometry.

Observed MW ~155 kDa.

Calculated MW ~155 kDa.

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