

Active Recombinant Human CRBN / DDB1 Complex, Flag&His tagged

Cat. No. CRBN-38H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CRBN and DDB1 Complex with Flag&His tag was expressed in Insect Cells (Sf9, <i>S. frugiperda</i>). The CRBN contains an N-terminal FLAG-TEV tag. DDB1 contains an N-terminal His8-TEV tag.
Species	Human
Source	Insect Cells
Description	Background: Cereblon (CRBN) is the substrate recognition subunit of the CRL4-CRBN cullin E3 ubiquitin ligase complex. It facilitates the ubiquitylation and subsequent proteasomal degradation of proteins including MEIS2, ILF2 and others, and its activity is required for proper limb development. Binding of immunomodulatory drugs (IMiD' s) remodels CRBN' s surface, thereby changing its substrate binding preference. Substrates that are bound by CRBN only in the presence of IMiD' s are known as "neosubstrates." Expanding CRBN' s neo-substrate scope is a frontier for oncology, neurodegeneration and other research in the field of Targeted Protein Degradation (TPD).
Form	25 mM HEPES, 150 mM NaCl, 1 mM TCEP, pH 7.5.
Bio-activity	Verified in Ternary Complex Assay.
Molecular Mass	CRBN: 55 kDa DDB1(ΔB): 96 kDa

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AASequence

CRBN: MDYKDDDDKSAVDENLYFQGGGRGSSAHIVMVDAYKPTKGGSGMAGEGD
 QQDAAHNMGNHLPLPAESEEDEMEVEDQDSKEAKKPNINFDTSLPTSHTYLGA
 DMEEFHGRTLHDDDDSCQVIPVLPQVMMILIPGQTLPLQLFHPQEVSMVRNLIQKDRT
 FAVLAYSNVQEREAQFGTTAEIYAYREEQDFGIEIVKVKAIGRQRFKVLELRTQSDGI
 QQAKVQILPECVLPSTMSAVQLESLNKCQIFPSKPVSRDQCSYKWWQKYQKRKFH
 CANLTWPRLWLYSLYDAETLMDRIKKQLREWDENLKDDSLPSNPIDFSYRVAACLP
 DDVLRQILLKIGSAIQLRCELDMNKCTSLCCKQCQETEITTKNEIFSLSLCGPMAAY
 VNPHGYVHETLTVYKACNLNLIGRPSTEHSWFPGYAWTVAQCKICASHIGWKFTAT
 KKDMSPQKFWGLTRSALLPTIPDTEDEISPDKVILCL DDB1(ΔB): MGSSHHHHHHHH
 SAVDENLYFQGGGRMSYNYVVTAKPTAVNGCVTGHFTSAEDLNLLIAKNTREIYV
 VTAEGLRPVKEVGMYGKIAMMELFRPKGESKDLLFILTAKNACILEYKQSGESIDIIT
 RAHGNVQDRIGRPSETGIIGIIDPECRMIGRLRYDGLFKVIPLDRDNKELKAFNIRLEEL
 HVIDVKFLYGCQAPTICFVYQDPQGRHVKTIEVSLREKEFNKGPWKQENVEAEASM
 VIAVPEPFGGAIIGQESITYHNGDKYLAIAPPIIKQSTIVCHNRVDPNGSRYLLGDMEG
 RLFMLLEKEEQMDGTVTLKDLRVELLGETSIAECLTYLDNGVVFVGSRLGDSQLVK
 LNVDSNEQGSYVAMETFTNLGPIVDMCVVDLERQGGQQLVTCGAFKEGSLRIIR
 NGIGGNGNSGEIQKLHIRTVPPLYESPRKICYQEVSCFCGVLSSRIEVQDTSGGTALR
 PSASTQALSSSVSSSKLFSSSTAPHETSFGEVEVHNLLIIDQHTFEVLHAHQFLQNE
 YALSLVSCCLGKDPNTYFIVGTAMVYPEEAEPKQGRIVVFQYSDGKLQTVAEKEVKG
 AVYSMVEFNGKLLASINSTVRLYEWTTEKELRTECNHYNMIMALYLKTKGDFILVGD
 MRSVLLLAYKPMEGNFEEIARDFNPWNMSAVEILDDDNFLGAENAFNLFVCQKDSA
 ATTDEERQHLQEVGLFHLGEFVNVFCHGSLVMQNLGETSTPTQGSVLFGTVNGMIG
 LVTSLSESWYNLLLDQMQRNLNKVIKSVGKIEHSFWRSFHTERKTEPATGFIDGDLIES
 FLDISRPKMQEVVANLQYDDGSGMKREATADDLIKVVEELTRIH

Purity

0.95

Applications

CRBN / DDB1(ΔB) is active in ternary complex formation assays using recombinant BRD4 and the degrader molecule dBET-1, and is also useful in proteomics approaches. This protein will NOT interact with CUL4.

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Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70 centigrade (stable for 24 months from date of receipt).
Concentration	10-30 µM
Reference	1. Baek K., et al. (2025) Nature Comm 16(1): 6831 PMID: 40707481 2. Liu Y., Bai J., Li D., et al. (2025) Trends Biochem Sci. 50 (2): 134-142. PMID 39753433 3. Carter T.R., et al. (2024) Bioorg Med Chem. 104: 117699. PMID 38608634

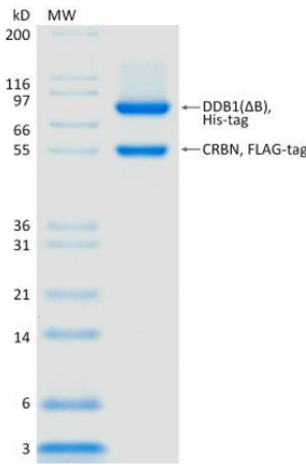
GENE INFORMATION

Gene Name	DDB1 damage-specific DNA binding protein 1, 127kDa [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-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

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Gene Name 2	CRBN cereblon [Homo sapiens (human)]
Official Symbol 2	CRBN
Synonyms 2	CRBN; cereblon; mental retardation, non syndromic, autosomal recessive, 2A, MRT2A; protein cereblon; protein x 0001; MRT2; MRT2A; MGC27358; DKFZp781K0715;
Gene ID 2	51185
mRNA Refseq 2	NM_001173482
Protein Refseq 2	NP_001166953
MIM 2	609262
UniProt ID 2	Q96SW2
SDS-PAGE	

2 µg CRBN / DDB1(ΔB) run on 4-12% SDS-PAGE gel under reducing conditions,
then visualized with Colloidal Coomassie Blue Stain.

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