

## Active Recombinant Human CRBN / DDB1 Complex, His tagged

**Cat. No.** CRBN-15H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active Recombinant Human CRBN and DDB1 Complex with N-8×His-TEV tag was expressed in Insect Cells (Sf9, <i>S. frugiperda</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | 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). |
| <b>Form</b>             | 40 mM HEPES, 100 mM NaCl, 10% Glycerol, 1 mM EDTA, 1 mM TCEP, pH 7.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bio-activity</b>     | Verified in Ternary Complex Assay.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>   | CRBN: 53 kDa DDB1: 131 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>AASequence</b>       | CRBN: MGHHHHHHHHGSENLYFQSMAGEGDQQDAAHNMGNHLPLLPAESEEDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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MEVEDQDSKEAKKPNIINFDTSLPTSHTYLGADMEEFHGRTLHDDDDSCQVIPVLPQV  
 MMILIPGQTLPLQLFHPQEVSMVRNLIQKDRTFAVLAYSINVQEREAQFGTTAEIYAYR  
 EEQDFGIEIVKVKAIQRQRFKVLELRTQSDGIQQAKVQILPECVLPSTMSAVQLESLN  
 KCQIFPSKPVSREDQCSYKWWQKYQKRKFHCANLTSWPRWLYSLYDAETLMDRIK  
 KQLREWDENLKDDSLPSNPIDFSYRVAACLPIDDLRIQLLKIGSAIQRLRCELDIMNK  
 CTSLCKQCQETEITTKNEIFSLSLCGPMAAYVNPBGYVHETLTVYKACNLNLIGRPS  
 TEHSWFPGYAWTVAQCKICASHIGWKFTATKKDMSPQKFWGLTRSALLPTIPDTE  
 EISPDKVILCL DDB1: MWSHPQFEKGGGSGGGSGGSAWSHPQFEKGSLEVLFPQGP  
 MSYNYVVTAQKPTAVNGCVTGHFTSAEDLNLLIAKNTRLEIYVVTAEGLRPVKEVGM  
 YGKIAVMELFRPKGESKDLLFILTAKNACILEYKQSGESIDIITRAHGNVQDRIGRPS  
 ETGIIGIIDPECRMIGLRLYDGLFKVIPLDRDNKELKAFNIRLEELHVIDVKFLYGCQAPT  
 ICFVYQDPQGRHVKTYEVSLEKEFNKGPWKQENVEAEASMVIAVPEPFGGAIIGQ  
 ESITYHNGDKYLAIAPPIKQSTIVCHNRVDPNGSRYLLGDMEGRLFMLLLEKEEQMD  
 GTVTLKDLRVELLGETSIAECLTYLDNGVVFVGSRLGDSQLVKLNVDNEQGSYVVA  
 METFTNLGPIVDMCVVDLERQGGQQLVTCGAFKEGSLRIIRNGIGIHEHASIDLPGIK  
 GLWPLRSDPNRETDDTLVLSFVGQTRVLMNGEEVEETELMGFVDDQQTFFCGNV  
 AHQQLIQITSASVRLVSQEPKALVSEWKEPQAKNISVASCNSSQVVAVGRALYYLQI  
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 MLGGEIIPRSILMTTFESSHYLLCALGDGALFYFGLNIETGLLSDRKKVTLGTQPTVLR  
 TFRSLSTTNVFACSDRPTVIYSSNHKLVSNNLKEVNYMCPLNSDGYPSLALANN  
 STLTIGTIDEIQKLHIRTVPPLYESPRKICYQEVSSQCFGLSSRIEVQDTSGGTTALRPS  
 ASTQALSSSVSSSKLFSSSTAPHETSFGEVEVHNLLIIDQHTFEVLHAHQFLQNEYA  
 LSLVSKLGKDPNTYFIVGTAMVYPEEAEPKQGRIVVFQYSDGKLQTVAEKEVKGAV  
 YSMVEFNGKLLASINSTVRLYEWTTKEKLRTECNHNNIMALYLKTKGDFILVGDLMR  
 SVLLLAYKPMEGNFEEIARDFNPNWMSAVEILDDDNFLGAENAFNLFVCQKDSAATT  
 DEERQHLQEVGLFHLGEFVNVFCHGSLVMQNLGETSTPTQGSVLFGTVNGMIGLVT  
 SLSESWYNLLLDMQNRLNKKVSVGKIEHSFWRSFHTERKTEPATGFIDGDLIESFLD  
 ISRPKMQEVVANLQYDDGSGMKREATADDLIKVVEELTRIH

|               |      |
|---------------|------|
| <b>Purity</b> | 0.95 |
|---------------|------|

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|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applications</b>  | CRBN / DDB1 is active in ternary complex formation assays using recombinant BRD4 and the degrader molecule dBET-1.                                                                                                                             |
| <b>Storage</b>       | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70 centigrade (stable for 24 months from date of receipt).                                                                                            |
| <b>Concentration</b> | 5-15 µM                                                                                                                                                                                                                                        |
| <b>Reference</b>     | 1. Liu Y., Bai J., Li D., et al. (2025) Trends Biochem Sci. 50 (2): 134-142. PMID 39753433 2. Carter T.R., et al. (2024) Bioorg Med Chem. 104: 117699. PMID 38608634 3. Costacurta M., et al. (2024) FEBS J. 291 (22): 4892-4912 PMID 38975872 |

## GENE INFORMATION

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

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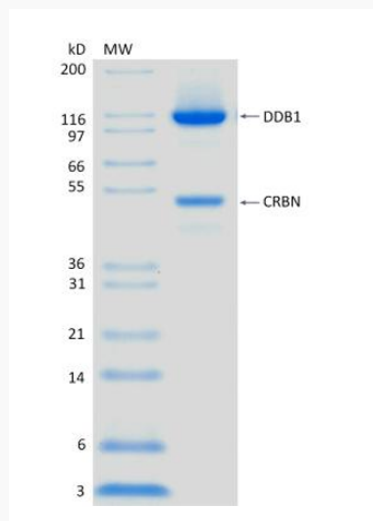
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UniProt ID</b>        | <a href="#">Q96SW2</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Name 2</b>       | <a href="#">DDB1 damage-specific DNA binding protein 1, 127kDa [ Homo sapiens (human) ]</a>                                                                                                                                                                                                                                                                                                                                                             |
| <b>Official Symbol 2</b> | <a href="#">DDB1</a>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Synonyms 2</b>        | 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; |
| <b>Gene ID 2</b>         | <a href="#">1642</a>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>mRNA Refseq 2</b>     | <a href="#">NM_001923</a>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Refseq 2</b>  | <a href="#">NP_001914</a>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>MIM 2</b>             | <a href="#">600045</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>UniProt ID 2</b>      | <a href="#">Q16531</a>                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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## SDS-PAGE



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

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