

**Product Name:** CRBN / DDB1

**Alternate Names:** Cereblon, CRBN (MRX69, AD-006)

**Product Code:** TE3-015

**FOR RESEARCH USE ONLY (RUO)**

**Verified Applications / Usage**

CRBN / DDB1 is active in ternary complex formation assays using recombinant BRD4 and the degrader molecule dBET-1.

**Physical Characteristics**

**Species:** Human

**Predicted MW (kDa):** CRBN: 53 kDa  
DDB1: 131 kDa

**Source:** Sf9 (*S. frugiperda*)

**Purity:** 95 %

**Tags:** CRBN: N-His<sub>8</sub>-TEV  
DDB1: N-Twin-Strep-3C

**Formulation:** 40 mM HEPES, 100 mM NaCl, 10% Glycerol, 1 mM EDTA, 1 mM TCEP, pH 7.6

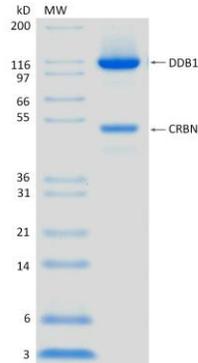
**Shipping:** The product is shipped with dry ice. Upon receipt, store it immediately at the temperature recommended below.

**Stability/Storage:** Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

## Quality Assurance

### Purity & SDS-PAGE

**Protein ID:** Protein cereblon,  
DNA damage-binding protein 1



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

### Activity Assay

Verified in Ternary Complex Assay.

## Background

### Description

Cereblon (CRBN) is the substrate-receptor of the CUL4–RING E3 ligase CRL4-CRBN. Recombinant human CRBN is co-purified as a stable heterodimer with its adaptor DDB1, retaining the complete thalidomide-binding CUL4 pocket and the DDB1-docking helical bundle. When combined with recombinant CUL4A/RBX1, this fusion can ubiquitylate substrates *in vitro*. CRBN protein contains an N-terminal His<sub>8</sub>-TEV tag, and DDB1 contains an N-terminal Twin-Strep-3C tag.

**Accession Number:** Q96SW2

**Entrez Gene ID:** CRBN

**Accession Number:** Q16531

**Entrez Gene ID:** DDB1

## Protein Sequences

### CRBN:

MGHHHHHHHGSSENLYFQSMAGEGDQQDAAHNMGNHLPLLPAESEEDEMEVEDQDSKEAKKP  
NIINFDTSLPTSHTYLGDMEEFHGRTLHDDSCQVIPVLPQVMMILIPGQTLPLQLFHPQEV  
SMVRNLIQKDRTFAYLAYSINVQEREAQFGTTAEIYAYREEQDFGIEIVKVKAIGRQRFKVLLEL  
RTQSDGIQQAKVQILPECVLPSTMSAVQLESLNKCQIFPSKPVSRDQCSYKWWQKYQKRKFH  
CANLTSWPRWLYSLYDAETLMDRIKKQLREWDENLKDDSLSPNPIDFSYRVAACLPIDDVLR  
QLLKIGSAIQRLRCELDIMNKCTSLCCKQCQETEITTKNEIFSLSLCGPMAAYVNPBGYVHET  
LTVYKACNLNLIIGRPSTEHSWFFPGYAWTVAQCKICASHIGWKFTATKKDMSPQKFWGLTRSAL  
LPTIPDTEDEISPKVILCL

### DDB1:

MWSHPQFEKGGGSGGGSGGSAWSHPQFEKGSLEVLVFGQPMSSYNYVVTAQKPTAVNGCVTGHFT  
SAEDLNLLIAKNTRLEIYVVTAEGLRPVKEVGMGKIAVMELFRPKGESKDLLFILTAKYNAC  
ILEYKQSGESIDIITRAHGNVQDRIGRPSETGIIGIIDPECRMIGLRLYDGLFKVIPLDRDNK  
ELKAFNIRLEELHVIDVKFLYGCQAPTICFVYQDPQGRHVKTIEVSLREKEFNKGPWKQENVE  
AEASMVIAVPEPFGGAIIGQESITYHNGDKYLAIAPPIIKQSTIVCHNRVDPNGSRYLLGDM  
EGRLFMLLLEKEEQMDGTVTLKDLRVELLGETSIAECLTYLDNGVVFVGSRLGDSQLVKNVD  
SNEQGSYVAMETFTNLGPIVDMCVVDLERQGGQQLVTCGAFKEGSLRIIRNGIGIHEHASI  
DLPGIKGLWPLRSDPNREDDTLVLSFVGQTRVLMNLNGEEVEETELMGFVDDQQTFFCGNVAH  
QQLIQITSASVRLVSQEPKALVSEWKEPQAKNISVASCNSSQVVAVGRALYYLQIHPQELRQ  
ISHTEMEHEVAACLDITPLGDSNGLSPLCAIGLWTDISARILKLPSFELLHKEMLGGEIIPRSI  
LMTTFESSHYLLCALGDGALFYFGLNIETGLLSDRKKVTLGTQPTVLRFRSLSTTNVFACSD  
RPTVIYSSNHKLVSFNVNLKEVNYMCPNSDGYPDSLALANNSTLTIGTIDEIQKLHIRTVPL  
YESPRKICYQEVSQCFGVLSSRIEVQDTSGGTTALRPSASTQALSSSVSSSKLFSSTAPHET  
SFGEEVEVHLLIIDQHTFEVLHAHQFLQNEYALSLVSCKLKDPNTYFIVGTAMVYPEEAEP  
KQGRIVVFQYSDGKLQTVAEKEVKGAVYSMVEFNGKLLASINSTVRLYEWTTEKELRTECNHY  
NNIMALYLKTKGDFILVGDLMRSVLLLAYKPMEGNFEEIARDFNPWNMSAVEILDDDNFLGAE  
NAFNLFVCQKDSAATTDEERQHLQEVGLFHLGFEVNVFCHGSLVMQNLGETSTPTQGSVLFGT  
VNGMIGLVTSLSESWYNLLLDMQNRLNKVIKSVGKIEHSFWRSFHTEKTEPATGFIDGLIE  
SFLDISRPKMQEVVANLQYDDGSGMKREATADDLIKVVEELTRIH