SZABO SCANDIC

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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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# DCAF1/Rbx1 (M5I)/DDB1/CUL4A Complex

Catalog: 102190
Lot: 240325-2

## Product Information

| | |
|---|---|
| **Description:** | Complex of recombinant human full length DCAF1 (DDB1 and CUL4 Associated Factor 1), amino acids 2-1507(end), full length Rbx1 (ring-box 1), amino acids 2-108(end), full length DDB1 (damage specific DNA binding protein 1), amino acids 2-1140(end) and full length CUL4A (cullin 4A), amino acids 2-759(end). The DCAF1 and DDB1 constructs include an N-terminal FLAG-tag. The Rbx1 and CUL4 constructs contain an N-terminal His-tag (6xHis). The Rbx construct also includes the mutation M5I. These recombinant proteins were co-expressed, and affinity purified. |
| **Background:** | DCAF1 (DDB1 and CUL4 Associated Factor 1), also known as VprBP (Vpr binding protein), is a WD40 repeat domain-containing E3 ligase of the CRL4 (cullin RING ligase 4) subfamily of proteins. It functions as the substrate recognition unit in E3 ligase complexes, such as the EED (embryonic ectoderm development)-DDB1 (DNA damage-binding protein)-VprBP (or EDVP) and the $CRL4^{DCAF1}$ complex. The $CRL4^{DCAF1}$ complex is composed of CUL4A (cullin-4A), DDB1 and DCAF1. DCAF1 is involved in various normal physiological functions in the cell, including cell cycle regulation/progression, cell division, lipid metabolism, and miRNA biogenesis. Additionally, DCAF1 plays an E3 ligase independent role, by acting as a kinase and phosphorylating Histone H2A. Antagonists of DCAF1 could be used toward the development of therapeutics for cancers and viral treatments. DCAF1 is found at high levels in cancer cells, and it is implicated in disease progression. The use of a DCAF1-BTK (Bruton's tyrosine kinase) PROTAC® resulted in degradation of BTK in cells that had acquired resistance to CRBN (cereblon)-BTK PROTACs, making DCAF1 an interesting alternative E3 ligase in cases of resistance mechanism to other commonly used PROTACs. A deeper understanding of the role of this protein and how to manipulate its multiple activities may open new therapeutic avenues. |
| **Species:** | Human |
| **Construct:** | DCAF1 (FLAG-2-1507(end)) / Rbx1 (M5I) (His-2-108(end)) / DDB1 (FLAG-2-1140(end)) / CUL4A (His-2-759(end)) |
| **Concentration:** | 1.01 mg/ml |
| **Expression System:** | HEK293 |
| **Purity:** | ≥90% |
| **Format:** | Aqueous buffer solution. |
| **Formulated In:** | 40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol |
| **MW:** | DCAF1: 169 kDa; Rbx1: 13 kDa; DDB1: 128 kDa; CUL4A: 88 kDa |
| **Genbank Accession:** | DCAF1: NM_014703.3; Rbx1: NM_014248; DDB1: NM_001923; CUL4A: NM_003589 |
| **Stability:** | At least 6 months at -80°C. |
| **Storage:** | -80°C |
| **Instructions for Use:** | Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles. |
| **Assay Conditions:** | The assay was done according to the protocol for DACF1 Intrachain TR-FRET Assay Kit (#82517) with various amounts of DCAF1/Rbx1 (M5I)/DDB1/CUL4A Complex. |
| **Applications:** | Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling. |

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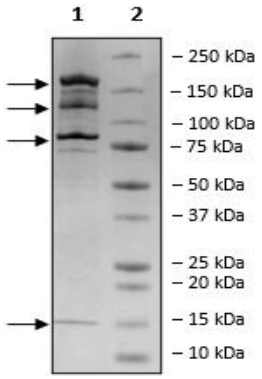
## Quality Control Data

### 4-20% SDS-PAGE Coomassie Staining




### DCAF1/Rbx1 (M5I)/DDB1/CUL4A Complex Activity