**Proteins** 



## **Product** Data Sheet

## RPRD1B Protein, Human (HEK293, N-His)

Cat. No.: HY-P701252

Synonyms: Regulation of nuclear pre-mRNA domain-containing protein 1B; C20orf77; CREPT

Species: HEK293 Source:

AAH33629.1 (M1-D326) Accession:

Gene ID: 58490 37-42 kDa Molecular Weight:

## **PROPERTIES**

| AA Sequence | AA | Seq | uen | ce |
|-------------|----|-----|-----|----|
|-------------|----|-----|-----|----|

MSSFSESALE KKLSELSNSQ HSVQTLSLWL IHHRKHAGPI VSVWHRELRK AKSNRKLTFL YLANDVIQNS KRKGPEFTRE FESVLVDAFS HVAREADEGC KKPLERLLNI WQERSVYGGE DSKSPPPKAT FIQQLKLSME EEKKSLKRTF QQIQEEEDDD YPGSYSPQDP SAGPLLTEEL IKALQDLENA ASGDATVRQK IASLPQEVQD VSLLEKITDK EAAERLSKTV DEACLLLAEY NGRLAAELED RRQLARMLVE YTQNQKDVLS EKEKKLEEYK QKLARVTQVR PDLSLLPNVT GGLAPLPSAG KELKSHIQSL

DLFSTD

**Biological Activity** Data is not available.

Lyophilized powder. **Appearance** 

**Formulation** Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

Reconsititution It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is

recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

Background

RPRD1B, also known as Ku70-binding protein 5-Hera or CREPT, is a necessary scaffolding protein that maintains genetic integrity by regulating resolution of R-loops at both the transcription termination and DNA double-strand break (DSB) repair levels<sup>[1]</sup>. RPRD1B is upregulated in various cancers and regulates genome stability and transcription termination<sup>[2]</sup>. In endometrial cancers, RPRD1B accelerates cell cycle through up-regulating Cyclin D1, CDK4, and CDK6 (main regulators of the G1/S phase transition during cell cycle)<sup>[3]</sup>. In addition, RPRD1B enhances transcription of CCND1 and promotes cell proliferation by interacting with RNA polymerase II. RPRD1B enhances the  $\beta$ -Catenin-TCF4 transcriptional activity in response to Wnt signaling<sup>[4]</sup>.

Caution: Product has not been fully validated for medical applications. For research use only.

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