

Recombinant Human RBM15 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50836

Size: 10ug, 100ug

Protein Name: RNA-binding protein 15 (One-twenty two protein 1) (RNA-binding motif protein 15)

Synonym: RBM15, OTT, OTT1

UniProt ID: Q96T37

UniProt Link: www.uniprot.org/uniprotkb/Q96T37/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 977 AA

Molecular Weight: 107 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MRTAGRDPVPRRSRPRWRRRAVPLCETSAGRRVTQLRGDDLRRPATMKGKERSPVKAKRSRGGEDS
TSRGERSKKLGGSGGSSNGSSSGKTDSSGGGSRRLHLDKSSSRGGSREYDTGGGSSSSRLHSYSS
PSTKNSSGGGESRSSSRGGGGESRSSGAASSAPGGGDGAHEYKTLKISELGSQLSDEAVEDGLFHE
FKRFGDVSVKISHLSGSGSGDERVAFVNFRRPEDARAACHARGRLVLYDRPLKIEAVYVSRRRSRS
PLDKDTYPPSASVVGASVGGHRHPPGGGGGQSRSLSPGGAALGYRDYRLQQALGRLPPPPPPPLP
RDLERERDYPFYERVPRPAYSLEPRVGAGAGAAPFREVEDEISPEDDQRANRTLFLGNLDITVTESDLR
RAFDRFGVITEVDIKRPSRGQTSTYGLFKFENLDMSHRAKLAMSGKIIIRNPIKIGYGKATPTTRLWVG
GLGPWWPLAALAREFDRFGTIRTIDYRKGDSDWAYIQYESLDAHAATHMRGFPLGGPDRLRLVDF
ADTEHRYQQQYLQPLPLTHYELVTDAFGHRAPDPLRGARDRTPLLYRDRDRDLYPDSDWVPPPP
PVRERSTRTAATSVPAYEPLDSLDRRRDGLSLDRDRGDRDLPSRDQPRKRRLPEESGGRHLDRS
PESDRPRKRHCAPSPDRSPELSSSRDRYNSDNDRSSRLLERPSPIRDRRGSLKSSQGDKRDRKN
SASAERDRKHRTTAPTEGKSPLKKEDRSDGSAPSTSTASSKLKSPSQKQDGGTAPVASASPKLCLA
WQGMLLLKNSNFPNMFHLLQGDQLQVASSLLVEGSTGGKVAQLKITQRLRLDQPKLDEVTRRIKVAG
PNGYAILLAVPGSSDSRSSSSSAASDTATSTQRPLRLNLSYLYKQKQAAGVISLPVGGNKKDKENTGVL
HAFPPCEFSQQFLDSPAKALAKSEEDYLVMIIVRGFGFQIGVRYENKKRENALTL

3. Buffer Composition



Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant RNA-binding protein 15 (One-twenty two protein 1) (RNA-binding motif protein 15) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: RNA-binding protein that acts as a key regulator of N6-methyladenosine (m6A) methylation of RNAs, thereby regulating different processes, such as hematopoietic cell homeostasis, alternative splicing of mRNAs and X chromosome inactivation mediated by Xist RNA (PubMed:27602518). Associated component of the WMM complex, a complex that mediates N6-methyladenosine (m6A) methylation of RNAs, a modification that plays a role in the efficiency of mRNA splicing and RNA processing (By similarity). Plays a key role in m6A methylation, possibly by binding target RNAs and recruiting the WMM complex (PubMed:27602518). Involved in random X inactivation mediated by Xist RNA: acts by binding Xist RNA and recruiting the WMM complex, which mediates m6A methylation, leading to target YTHDC1 reader on Xist RNA and promoting transcription repression activity of Xist (PubMed:27602518). Required for the development of multiple tissues, such as the maintenance of the homeostasis of long-term hematopoietic stem cells and for megakaryocyte (MK) and B-cell differentiation (By similarity). Regulates megakaryocyte differentiation by regulating alternative splicing of genes important for megakaryocyte differentiation; probably regulates alternative splicing via m6A regulation (PubMed:26575292). Required for placental vascular branching morphogenesis and embryonic development of the heart and spleen (By similarity). Acts as a regulator of thrombopoietin response in hematopoietic stem cells by regulating alternative splicing of MPL (By similarity). May also function as an mRNA export factor, stimulating export and expression of RTE-containing mRNAs which are present in many retrotransposons that require to be exported prior to splicing (PubMed:17001072, PubMed:19786495). High affinity binding of pre-mRNA to RBM15 may allow targeting of the mRNP to the export helicase DBP5 in a manner that is independent of splicing-mediated NXF1 deposition, resulting in export prior to splicing (PubMed:17001072, PubMed:19786495). May be implicated in HOX gene regulation (PubMed:11344311).

Subcellular Localization: Nucleus speckle . Nucleus, nucleoplasm . Nucleus envelope . Nucleus membrane ; Peripheral membrane protein . Note=Colocalizes at the nuclear pore with DBP5 and NXF1.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.