

Recombinant Mouse RNF41 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51728

Size: 10ug, 100ug

Protein Name: E3 ubiquitin-protein ligase NRDP1 (EC 2.3.2.27) (RING finger protein 41) (RING-type E3 ubiquitin transferase NRDP1)

Synonym: Rnf41, Flrf, Nrdp1

UniProt ID: Q8BH75

UniProt Link: www.uniprot.org/uniprotkb/Q8BH75/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 317 AA

Molecular Weight: 36 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGYDVTRFQGDVDEDLICPICSGVLEEPVQAPHCEHAFCNACITQWFSQQQTCPVDRSVVTVAHLR
PVPRIMRNMLSKLQIACDNAVFGCSAVVRLDNLMSHLSDCEHNPKRPTCEQGCGLEMPKDELPH
NCIKHLRSVVQQQSRIAELEKTSAEHKKQLAEQKRDIQLLKAYMRAIRSVNPNLQNLEETIEYNEILE
WVNSLQPARVTRWGGMISTPDAVLQAVIKRSLVESGCPASIVNELIENAHERSWPQGLATLETRQM
NRRYYENYVAKRIPGKQAVVVMACENQHMGDDMVQEPLVMIFAHGVEEI

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 E3 ubiquitin-protein ligase NRDP1 (EC 2.3.2.27) (RING finger protein 41) (RING-type E3 ubiquitin transferase NRDP1) 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: Acts as E3 ubiquitin-protein ligase and regulates the degradation of target proteins. Polyubiquitinates MYD88 (By similarity). Negatively regulates MYD88-dependent production of pro-inflammatory cytokines. Can promote TRIF-dependent production of type I interferon and inhibits infection with vesicular stomatitis virus. Also promotes activation of TBK1 and IRF3 (PubMed:19483718). Involved in the ubiquitination of erythropoietin (EPO) and interleukin-3 (IL-3) receptors. Thus, through maintaining basal levels of cytokine receptors, RNF41 is involved in the control of hematopoietic progenitor cell differentiation into myeloerythroid lineages (PubMed:18495327). Contributes to the maintenance of steady-state ERBB3 levels by mediating its growth factor-independent degradation. Involved in the degradation of the inhibitor of apoptosis BIRC6 and thus is an important regulator of cell death by promoting apoptosis. Also acts as a PRKN modifier that accelerates its degradation, resulting in a reduction of PRKN activity, influencing the balance of intracellular redox state. The RNF41-PRKN pathway regulates autophagosome-lysosome fusion during late mitophagy. Mitophagy is a selective form of autophagy necessary for mitochondrial quality control (PubMed:24949970).

Subcellular Localization: N/A

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.