

Recombinant Mouse REG3A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51136

Size: 10ug, 100ug

Protein Name: Regenerating islet-derived protein 3-alpha (REG-3-alpha) (Islet of Langerhans regenerating protein 3) (Lithostathine 3) (Pancreatitis-associated protein 2) (Regenerating islet-derived protein III-alpha) (Reg III-alpha) [Cleaved into: Regenerating islet-derived protein 3-alpha 16.5 kDa form; Regenerating islet-derived protein 3-alpha 15 kDa form]

Synonym: Reg3a, Pap2

UniProt ID: O09037

UniProt Link: www.uniprot.org/uniprotkb/O09037/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 175 AA

Molecular Weight: 20 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLPHLVLSISWMLLSCLLFVFQVQGEDFQKEVPSPTSCPMGYKAYRSHCYALVMTPKSWFQADL
VCQKRPSGHLVSILSGGEASFVSSLVNGRVDNYQDIWIGLHDPTMGQQPNGGGWEWSNSDVLNLYL
NWDGDPSSTVNRGHCGSLTASSGFLKWGDYYCDGTLPPVCKFKQ

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 Regenerating islet-derived protein 3-alpha (REG-3-alpha) (Islet of Langerhans regenerating protein 3) (Lithostathine 3) (Pancreatitis-associated protein 2) (Regenerating islet-derived protein III-alpha) (Reg III-alpha) [Cleaved into: Regenerating islet-derived protein 3-alpha 16.5 kDa form; Regenerating islet-derived protein 3-alpha 15 kDa form] 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: Bactericidal C-type lectin. The lack of the EPN motif may explain its inability to bind peptidoglycan.; Acts as a hormone in response to different stimuli like anti-inflammatory signals, such as IL17A, or gut microbiome. Secreted by different cell types to activate its receptor EXTL3 and induce cell specific signaling pathways. Induced by IL17A in keratinocytes, regulates keratinocyte proliferation and differentiation after skin injury via activation of EXTL3-PI3K-AKT signaling pathway (By similarity). In parallel, inhibits skin inflammation through the inhibition of inflammatory cytokines such as IL6 and TNF (PubMed:22727489). In pancreas, is able to permeabilize beta-cells membrane and stimulate their proliferation (PubMed:36240759).

Subcellular Localization: Secreted . Note=Found in the apical region of pancreatic acinar cells.

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.