

Recombinant Rat REG3G Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52362

Size: 10ug, 100ug

Protein Name: Regenerating islet-derived protein 3-gamma (REG-3-gamma) (Pancreatitis-associated protein 3) (Regenerating islet-derived protein III-gamma) (Reg III-gamma)
[Cleaved into: Regenerating islet-derived protein 3-gamma 16.5 kDa form; Regenerating islet-derived protein 3-gamma 15 kDa form]

Synonym: Reg3g, Pap3

UniProt ID: P42854

UniProt Link: www.uniprot.org/uniprotkb/P42854/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 174 AA

Molecular Weight: 19 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLPRVALTTMSWMLLSSLMLLSQVQGEDAKEDVPTSRISCPKGSRAYGSYCYALFSVSKSWFDADL
ACQKRPSGHLVSVLSGSEASFVSSLIKSSGNSGQNVWIGLHDPTLGQEPNRGGWEWSNADVMNYF
NWETNPSSVSGSHCGTLTRASGFLRWRENNCISELPYVCKFKA

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-gamma (REG-3-gamma) (Pancreatitis-associated protein 3) (Regenerating islet-derived protein III-gamma) (Reg III-gamma) [Cleaved into: Regenerating islet-derived protein 3-gamma 16.5 kDa form; Regenerating islet-derived protein 3-gamma 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 which acts exclusively against Gram-positive bacteria and mediates bacterial killing by binding to surface-exposed carbohydrate moieties of peptidoglycan. Restricts bacterial colonization of the intestinal epithelial surface and consequently limits activation of adaptive immune responses by the microbiota.; Acts as a hormone in response to different stimuli like anti-inflammatory signals, such as IL17A, or gut microbiome. Is 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. In parallel, inhibits skin inflammation through the inhibition of inflammatory cytokines such as IL6 and TNF. Induced by IL22 in lung epithelial cells, inhibits cytokine production and regulates allergic airway inflammation. Induced in small intestine by inulin-enriched diet and Lactobacillus gasseri enriched microbiome, plays a role in the improvement of gut barrier function, the regulation of energy balance and glucose levels. Modulates microbiota composition in duodenal contents. Produced by nociceptor in response to endotoxins, prevents endotoxic death by targeting kynurenine pathway in microglia.; [Regenerating islet-derived protein 3-gamma 16.5 kDa form]: Has bacteriostatic activity.; [Regenerating islet-derived protein 3-gamma 15 kDa form]: Has bactericidal activity against L.monocytogenes and methicillin-resistant S.aureus.

Subcellular Localization: Secreted . Cytoplasm .

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.