

# Recombinant Mouse MRGB2 Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP51584

Size: 10ug, 100ug

Protein Name: Mas-related G protein-coupled receptor member B2

Synonym: Mrgprb2, Mrgb2

UniProt ID: Q3KNA1

UniProt Link: [www.uniprot.org/uniprotkb/Q3KNA1/entry](http://www.uniprot.org/uniprotkb/Q3KNA1/entry)

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 338 AA

Molecular Weight: 39 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MSGDFLIKNLSTSAWKTNITVLNGSYYIDTSVCVTRNQAMILLSIIISLVGMGLNAIVLWFLGIRMHTNA  
FTVYILNLAMADFLYLCSQFVICLLIAFYIFYSIDINIPLVLYVPIFAYLSGLSILSTISIERCLSVIWPWYR  
CKRPRHTSAITCFVLWVMSLLLGLLEGKACGLLFNSFDSYWCETFDVITNIWSVVFVGVLGSSLTLL  
VRIFCGSQRIPMTRLVYVTITLVFLIFGLPFGIYWILYQWISNFYYVEICNFYLEILFLSCVNSCMNPPII  
YFLVGSIRHRRFRRKTLKLLQRAMQDTPEEEQSGNKSSSEHPPEELETQSCS

## 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 Mas-related G protein-coupled receptor member B2 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:** Mast cell-specific G protein-coupled receptor for basic secretagogues, which regulates mast cell degranulation and itch-related hypersensitivity reactions (PubMed:25517090). A secretagogue is an agent that promotes the secretion of hormones, neurohormones, chemical neurotransmitters or other compounds synthesized and secreted by cells (PubMed:25517090). Basic secretagogues comprise a set of cationic amphiphilic drugs, as well as endo- or exogenous peptides, consisting of a basic head group and a hydrophobic core (PubMed:25517090). Recognizes and binds small molecules containing a cyclized tetrahydroisoquinoline (THIQ), such as non-steroidal neuromuscular blocking drugs (NMBDs), including tubocurarine and atracurium. In response to these compounds, mediates pseudo-allergic reactions characterized by histamine release, inflammation and airway contraction (PubMed:25517090). Acts as a receptor for substance P, a basic secretagogue neuropeptide released from the terminals of specific sensory nerves, initiating a signaling that mediates neurogenic inflammation and pain (PubMed:30686732). Neurogenic inflammation includes mast cell activation, recruitment of immune cells and release of inflammatory mediators, such as cytokines and chemokines (PubMed:30686732).

**Subcellular Localization:** Cell membrane ; Multi-pass membrane protein .

## 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.