

Recombinant Mouse S1PR4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52000

Size: 10ug, 100ug

Protein Name: Sphingosine 1-phosphate receptor 4 (S1P receptor 4) (S1P4) (Endothelial differentiation G protein-coupled receptor 6) (Lysophospholipid receptor C1) (Sphingosine 1-phosphate receptor Edg-6) (S1P receptor Edg-6)

Synonym: S1pr4, Edg6, Lpc1, S1p4

UniProt ID: Q9Z0L1

UniProt Link: www.uniprot.org/uniprotkb/Q9Z0L1/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 386 AA

Molecular Weight: 42 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNISTWSTLVTPESCHRLAASGHSLILVHYNHSGRLASRGGSEDGGGLGMLRGPSVAAGCLVVLE
NAMVLAAIAIYMRSRRWVYYCLLNITLSDLLTGLAYVVNVLLSGTRTFQLSPVHWFLREGLLFMALAA
STFSLLFTAGERFATMVRVAESGATKTSRVYGCIGLCWLLAAILGLLPLLGNVCVAFPRCSSLLPLY
SKGYVLFVVFALILVAILSLYGAIFRVVRANGQKSPRPPARRKSRLLNTVLMILVAFVVCWGPLFG
LLLADIFGSNVWAQEYLRGMDWILALAVFNSAINPLIYSFRSREVQRAVLAFLCCGCLWLGLRGPGD
CLTRITEAHSGASTTDSLRPRDSFRTSRSLSFMRREPLSSISSVRST

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 Sphingosine 1-phosphate receptor 4 (S1P receptor 4) (S1P4) (Endothelial differentiation G protein-coupled receptor 6) (Lysophospholipid receptor C1) (Sphingosine 1-phosphate receptor Edg-6) (S1P receptor Edg-6) 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: G protein-coupled receptor highly expressed in immune cells, where it regulates immune response and cytokine production. Functions as a receptor for the lysosphingolipid sphingosine-1-phosphate (S1P). Upon S1P binding, promotes regulatory T-cell differentiation and enhances fatty acid oxidation, through activation of the NRF2/PPARA signaling pathway (PubMed:39007959). Modulates also M1 macrophage activation through interaction with FPR2 and the JNK signaling, thereby contributing to the inflammatory response (PubMed:37056936). In addition, facilitates early neutrophil mobilization and vascular activation during inflammation, promoting lymphocyte recruitment to draining lymph nodes and supporting the development of germinal centers for an effective adaptive immune response (PubMed:39188715).

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.