

Recombinant Mouse SCIMP Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51597

Size: 10ug, 100ug

Protein Name: SLP adapter and CSK-interacting membrane protein

Synonym: Scimp

UniProt ID: Q3UU41

UniProt Link: www.uniprot.org/uniprotkb/Q3UU41/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 150 AA

Molecular Weight: 17 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSWWRDNFWIILAMSIIFISLVGLILYCVCRWQLRQGRNWEIAKPSKQDGRDEEKMYENVLNSSPG
QLPALPPRGSPFPGDLAPQEAPRQPSAWYSSVKKVRNKKVFAISGSTEPENDYDDVEIPATTETQH
SKTTPFWQAEVGLHSSF

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 SLP adapter and CSK-interacting membrane protein 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: Lipid tetraspanin-associated transmembrane adapter/mediator that acts as a scaffold for Src-family kinases and other signaling proteins in immune cells (PubMed:27288407, PubMed:28098138, PubMed:28290451). It is involved in major histocompatibility complex class II (MHC-II) signaling transduction in B cells, where it is required in generating the calcium response and enhancing ERK activity upon MHC-II stimulation (By similarity). In dendritic cells, it is involved in sustaining CLEC7A/DECTIN1 signaling after CLEC7A activation by fungal beta-glucans (PubMed:27288407). It also acts as an agonist-inducible signaling adapter for TLR1, TLR2, TLR3, TLR4, and TLR7 by selectively enabling the expression of pro-inflammatory cytokines IL6 and IL12B in macrophages and acting as a scaffold for phosphorylation of Toll-like receptors by Src-family kinases (PubMed:28098138).

Subcellular Localization: Cell membrane ; Single-pass membrane protein . Cell membrane ; Lipid-anchor . Cytoplasmic vesicle, phagosome . Cell projection, ruffle . Cell projection, filopodium .
Note=Together with MHC-II, associates with lipid-enriched microdomains called tetraspanin-enriched microdomains (TEMs) (By similarity). Rapidly translocates into immunological synapse (IS) at cell-cell contacts between antigen-presenting cells (APCs) and T-cells (By similarity). Colocalized with tetraspanins CD37, CD53, and CD81 at the uropod (By similarity). Present at regions of cell-cell contacts but also at the leading edge of migrating cells (By similarity). Localizes to phagosomes in dendritic cells after exposure to particulate beta-glucan (PubMed:27288407).

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.