

Recombinant Mouse S100B Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51454

Size: 10ug, 100ug

Protein Name: Protein S100-B (S-100 protein beta chain) (S-100 protein subunit beta) (S100 calcium-binding protein B)

Synonym: S100b

UniProt ID: P50114

UniProt Link: www.uniprot.org/uniprotkb/P50114/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 92 AA

Molecular Weight: 11 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSELEKAMVALIDVFHQYSGREGDKHKLKKSELKELINNELSHFLEEIKEQEVVDKVMETLDEDGDG
ECDFQEFMAMVMTTACHEFFEHE

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 Protein S100-B (S-100 protein beta chain) (S-100 protein subunit beta) (S100 calcium-binding protein B) 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: Small zinc- and- and calcium-binding protein that is highly expressed in astrocytes and constitutes one of the most abundant soluble proteins in brain (By similarity). Weakly binds calcium but binds zinc very tightly-distinct binding sites with different affinities exist for both ions on each monomer (By similarity). Physiological concentrations of potassium ion antagonize the binding of both divalent cations, especially affecting high-affinity calcium-binding sites (By similarity). Acts as a neurotrophic factor that promotes astrocytosis and axonal proliferation (PubMed:2592414, PubMed:8202493). Involved in innervation of thermogenic adipose tissue by acting as an adipocyte-derived neurotrophic factor that promotes sympathetic innervation of adipose tissue (PubMed:31043739). Binds to and initiates the activation of STK38 by releasing autoinhibitory intramolecular interactions within the kinase (By similarity). Interaction with AGER after myocardial infarction may play a role in myocyte apoptosis by activating ERK1/2 and p53/TP53 signaling (By similarity). Could assist ATAD3A cytoplasmic processing, preventing aggregation and favoring mitochondrial localization (By similarity). May mediate calcium-dependent regulation on many physiological processes by interacting with other proteins, such as TPR-containing proteins, and modulating their activity (By similarity).

Subcellular Localization: Cytoplasm . Nucleus . Secreted . Note=Secretion into the medium is promoted by interaction with isoform CLSTN3beta of CLSTN3.

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.