

Recombinant Rat S10A4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52245

Size: 10ug, 100ug

Protein Name: Protein S100-A4 (Metastasin) (Nerve growth factor-induced protein 42A) (P9K) (Placental calcium-binding protein) (S100 calcium-binding protein A4)

Synonym: S100a4

UniProt ID: P05942

UniProt Link: www.uniprot.org/uniprotkb/P05942/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 101 AA

Molecular Weight: 12 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MARPLEEALDVIVSTFHKYSGNEGDKFKLNKTELKELLTRELP SFLGRRTDEAAFQKLMNNLDSNRD
NEVDFQEYCVFLSCIAMMCNEFFEGCPDKEPRKK

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-A4 (Metastasin) (Nerve growth factor-induced protein 42A) (P9K) (Placental calcium-binding protein) (S100 calcium-binding protein A4) 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: Calcium-binding protein that plays a role in various cellular processes including motility, angiogenesis, cell differentiation, apoptosis, and autophagy. Increases cell motility and invasiveness by interacting with non-muscle myosin heavy chain (NMMHC) IIA/MYH9 (By similarity). Mechanistically, promotes filament depolymerization and increases the amount of soluble myosin-IIA, resulting in the formation of stable protrusions facilitating chemotaxis (By similarity). Also modulates the pro-apoptotic function of TP53 by binding to its C-terminal transactivation domain within the nucleus and reducing its protein levels (By similarity). Within the extracellular space, stimulates cytokine production including granulocyte colony-stimulating factor and CCL24 from T-lymphocytes (By similarity). In addition, stimulates T-lymphocyte chemotaxis by acting as a chemoattractant complex with PGLYRP1 that promotes lymphocyte migration via CCR5 and CXCR3 receptors (By similarity).

Subcellular Localization: Secreted . Nucleus . 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.