

Recombinant Mouse SOCS7 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51812

Size: 10ug, 100ug

Protein Name: Suppressor of cytokine signaling 7 (SOCS-7)

Synonym: Socs7, Cish7, Nap4

UniProt ID: Q8VHQ2

UniProt Link: www.uniprot.org/uniprotkb/Q8VHQ2/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 579 AA

Molecular Weight: 63 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MVFRNVGRPPEEEDAEAAAREPGPSELLCPRHRCALDPKALPPGLALERTWGPVAGLEAQLAALGLG
QPAGPGIKTAGGGCCPCPCPPQPPPPQPPPPAAAPQAGEDPTETSDALLVLEGLESEAESLETNSC
SEELSSPGRGGGGVGGRLLLQPPGPELPPVPFPLQDLVPPGRLSRGEQQQQQPPPPPPPPGPLR
PLAGPSRKGSFKIRLSRLFRKSCNGSGGGDGTGKRPSGDLAASAASLTDMGGSARELDTGRK
PRLTRTQSAFSPVSFSPLFTGETVSLVDVDISQRGLTSPHPPTPPPPRRSLSLDDISGTLPTSVLVA
PMGSSLQSFPLPPPPPPHAPDAFPRIAPIRASESLHSQPPQHLQCPLYRPDSSSFAASLRELEKCGW
YWGPMNWEDAEMKLKGPDGSLVRDSSDPRIYLSLSFRSQGITHHTRMEHYRGTFSLWCHPKFE
DRCQSVVEFIKRAIMHSGKNGKFLYFLRSRVPGLPPTPVQLLYPVSFRFSNVKSLQHLCRFRIRQLVRID
HIPDLPLPKPLISYIRKFYYDPQEEVYLSLKEAQLISKQKQEVPEPST

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 Suppressor of cytokine signaling 7 (SOCS-7) 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: Substrate-recognition component of a cullin-5-RING E3 ubiquitin-protein ligase complex (ECS complex, also named CRL5 complex), which mediates the ubiquitination and subsequent proteasomal degradation of target proteins, such as DAB1 and IRS1 (PubMed:16127460, PubMed:24210661). Specifically recognizes and binds phosphorylated proteins via its SH2 domain, promoting their ubiquitination (PubMed:24210661). The ECS(SOCS7) complex acts as a key regulator of reelin signaling by mediating ubiquitination and degradation of phosphorylated DAB1 in the cortical plate of the developing cerebral cortex, thereby regulating neuron positioning during cortex development (PubMed:24210661). Functions in insulin signaling and glucose homeostasis through IRS1 ubiquitination and subsequent proteasomal degradation (PubMed:16127460). Also inhibits prolactin, growth hormone and leptin signaling by preventing STAT3 and STAT5 activation, sequestering them in the cytoplasm and reducing their binding to DNA (By similarity).

Subcellular Localization: Cytoplasm . Nucleus . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . Note=Mostly cytoplasmic, but shuttles between the cytoplasm and the nucleus. Rapidly relocalizes to the nucleus after UV irradiation. Cytoplasmic location depends upon SEPT7 presence.

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.