

Recombinant Human SOCS7 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50914

Size: 10ug, 100ug

Protein Name: Suppressor of cytokine signaling 7 (SOCS-7) (Nck, Ash and phospholipase C gamma-binding protein) (Nck-associated protein 4) (NAP-4)

Synonym: SOCS7, NAP4, SOCS6

UniProt ID: O14512

UniProt Link: www.uniprot.org/uniprotkb/O14512/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 581 AA

Molecular Weight: 63 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MVFRNVGRPPEEEDVEAAPEPGPSELLCPRHRCALDPKALPPGLALERTWGPAAGLEAQLAALGLG
QPAGPGVKTVGGGCCPCPCPPQPPPPQPQPPAAAPQAGEDPTETSDALLVLEGLESEAESLETNS
CSEELSSPGRGGGGGGRRLLQPPGPELPPVPFPLQDLVPLGRLSRGEQQQQQQQPPPPPPPP
GPLRPLAGPSRKGSFKIRLSRLFRTKSCNGGSGGGDGTGKRPSGELAASAASLTDMGGSAGRELD
AGRKPKLTRTQSAFSPVSFSPLFTGETVSLVDVDISQRGLTSPHPPTPPPPRRSLSLDDISGTLPT
SVLVAPMGSSLQSFPLPPPPPPHAPDAFPRIAPIRAAESLHSQPPQHLQCPLYRPDSSSFAASLRELE
KCGWYWGPMNWEDAEMKLKGKPDGSFLVRDSSDPYILSLSFRSQGITHHTRMEHYRGTFSLWC
HPKFEDRCQSVVEFIKRAIMHSGKNGKFLYFLRSRVPGLPPTPVQLLYPVSFRFSNVKSLQHLRCFRIRQ
LVRIDHIPDLPLPKPLISYIRKFYYYPQEEVYLSLKEAQLISKQKQEVEPST

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) (Nck, Ash and phospholipase C gamma-binding protein) (Nck-associated protein 4) (NAP-4) 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). Specifically recognizes and binds phosphorylated proteins via its SH2 domain, promoting their ubiquitination (By similarity). 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 (By similarity). 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 (PubMed:15677474).

Subcellular Localization: Cytoplasm . Nucleus . Cell membrane; Peripheral membrane protein; Cytoplasmic side . Note=Mostly cytoplasmic, but shuttles between the cytoplasm and the nucleus (PubMed:17803907). Rapidly relocates to the nucleus after UV irradiation (PubMed:17803907). Cytoplasmic location depends upon SEPT7 presence (PubMed:17803907).

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.