Recombinant CISH protein (His tag)

Catalog Number	541355
Synonyms	CIS; CIS-1; Protein G18; Suppressor of cytokine signaling; SOCS
Species	Human
Expression System	E. coli
Accession	Q9NSE2
Molecular Weight	Predictes a molecular mass of 13.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	62-169
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 62-169 aa (Q9NSE2) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Introducing the recombinant Human Cytokine-inducible SH2-containing protein (CIS) fragment (residues 62-169), a high-purity protein designed to encompass the complete SH2 domain. This fragment serves as an essential tool for investigating the molecular mechanisms of cytokine signaling regulation, particularly in studies focused on JAK-STAT5 pathway inhibition and protein-protein interactions. Cytokine-inducible SH2-containing protein (CIS), encoded by the CISH gene in Homo sapiens, is a key member of the SOCS family that functions as a classical negative regulator of cytokine signal transduction. It specifically modulates cytokines signaling through the JAK-STAT5 pathway, including erythropoietin, prolactin, and interleukin-3 receptors. CIS inhibits STAT5 trans-activation by suppressing its tyrosine phosphorylation and may function as a substrate-recognition component of an E3 ubiquitin-protein ligase complex, facilitating the ubiquitination and proteasomal degradation of target proteins, thereby playing a crucial role in maintaining cytokine signaling homeostasis.