

Human SOCS3 / CIS3 Protein (His & Trx Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 11315-H30E

General Information

Gene Name Synonym:

ATOD4; CIS3; Cish3; SOCS-3; SSI-3; SSI3

Protein Construction:

A DNA sequence encoding the human SOCS3 (O14543) (Met 1-Leu 225) was fused with a Trx and a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human SOCS3/Trx fusion protein consisting of 384 amino acids and has a calculated molecular mass of 41.9 kDa. It migrates as an approximately 46 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

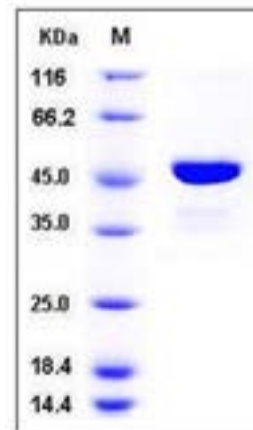
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Suppressor of cytokine signaling 3, also known as SOCS-3, Cytokine-inducible SH2 protein 3, CIS-3, STAT-induced STAT inhibitor 3, SOCS3 and CIS3, is a protein which is widely expressed with high expression in heart, placenta, skeletal muscle, peripheral blood leukocytes, fetal and adult lung, and fetal liver and kidney. SOCS3 / CIS3 contains one SH2 domain and one SOCS box domain. SOCS family proteins form part of a classical negative feedback system that regulates cytokine signal transduction. SOCS3 / CIS3 is involved in negative regulation of cytokines that signal through the JAK / STAT pathway. SOCS3 / CIS3 inhibits cytokine signal transduction by binding to tyrosine kinase receptors including gp130, LIF, erythropoietin, insulin, IL12, GCSF and leptin receptors. Binding to JAK2 inhibits its kinase activity. SOCS3 / CIS3 suppresses fetal liver erythropoiesis. It regulates onset and maintenance of allergic responses mediated by T-helper type 2 cells. SOCS3 / CIS3 regulates IL-6 signaling. SOCS3 / CIS3 interacts with multiple activated proteins of the tyrosine kinase signaling pathway including IGF1 receptor, insulin receptor and JAK2. SOCS3 / CIS3 could be used as a possible therapeutic agent for treating rheumatoid arthritis.

References

1. Hoertner M., et al., 2002, Eur. J. Biochem. 269:2516-26.
2. Yamamoto K., et al., 2003, Biochem. Biophys. Res. Commun. 310 : 1188-93.
3. Kamura T., et al., 2004, Genes Dev. 18:3055-65.

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For US Customer: Fax: 267-657-0217

• Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288

• Tel:+86-400-890-9989

• <http://www.sinobiological.com>