**Proteins** 

# **Product** Data Sheet

# **SOCS1 Protein, Human (P. pastoris, His)**

Cat. No.: HY-P71785

Synonyms: CISH 1; CISH1; Cytokine inducible SH2 protein 1; JAB; JAK binding protein; JAK-binding protein;

Janus kinase binding protein; SOCS 1; TEC interacting protein 3; Tec-interacting protein 3; TIP 3

Human Species: Source: P. pastoris

Accession: O15524 (1M-211I)

Gene ID: 8651

Molecular Weight: Approximately 25.6 kDa

### **PROPERTIES**

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MVAHNQVAAD NAVSTAAEPR RRPEPSSSSS SSPAAPARPR PCPAVPAPAP GDTHFRTFRS HADYRRITRA SALLDACGFY WGPLSVHGAH ERLRAEPVGT FLVRDSRQRN CFFALSVKMA SGPTSIRVHF QAGRFHLDGS RESFDCLFEL LEHYVAAPRR MLGAPLRQRR VRPLQELCRQ RIVATVGREN LARIPLNPVL

RDYLSSFPFQ

**Appearance** 

Lyophilized powder.

**Formulation** 

Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.

**Endotoxin Level** 

<1 EU/ $\mu$ g, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** 

Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

#### **Background**

SOCS1 Protein is an essential negative regulator of type I and type II interferon (IFN) signaling, along with other cytokines such as IL2, IL4, IL6, and leukemia inhibitory factor (LIF). It downregulates cytokine signaling by inhibiting the JAK/STAT pathway, binding to JAK proteins and IFNGR1 to inhibit their kinase activity. Additionally, SOCS1 suppresses Tec proteintyrosine activity in vitro and plays a role in regulating IFN-gamma (IFNG)-mediated sensory neuron survival. It is also a probable substrate recognition component of an ECS (Elongin BC-CUL2/5-SOCS-box protein) E3 ubiquitin ligase complex, contributing to the ubiquitination and subsequent proteasomal degradation of target proteins through protein modification.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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