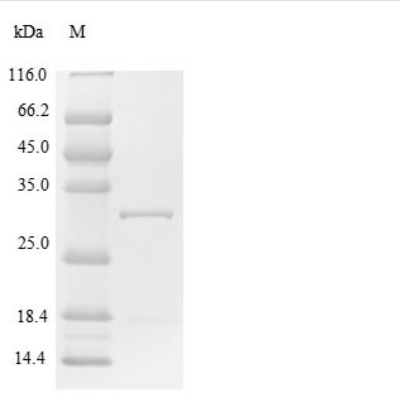
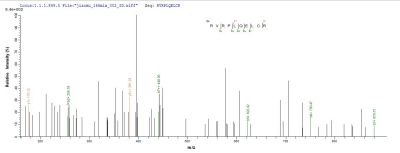
Recombinant Human Suppressor of cytokine signaling 1 (SOCS1)

Product Code	CSB-EP022388HU
Relevance	SOCS family proteins form part of a classical negative feedback syst that regulates cytokine signal transduction. SOCS1 is involved in negative regulation of cytokines that signal through the JAK/STAT3 pathway. Through binding to JAKs, inhibits their kinase activity. In vitro, also suppresses Tec protein-tyrosine activity. Appears to be a major regulator of signaling by interleukin 6 (IL6) and leukia inhibitory factor (LIF). Regulates interferon-gamma mediated sensory neuron survival . Probable substrate recognition component of an ECS (Elongin BC-CUL2/5-SOCS-box protein) E3 ubiquitin ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. Ses to recognize JAK2. SOCS1 appears to be a negative regulator in IGF1R signaling pathway.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O15524
Alias	JAK-binding protein ;JABSTAT-induced STAT inhibitor 1 ;SSI-1Tec-interacting protein 3 ;TIP-3
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPG DTHFRTFRSHADYRRITRASALLDACGFYWGPLSVHGAHERLRAEPVGTFLVR DSRQRNCFFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFELLEHYVAA PRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPVLRDYLSSFPFQI
Lead Time	3-7 business days
Research Area	Immunology
Source	E.coli
Gene Names	SOCS1
Expression Region	1-211aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	27.6kDa
Protein Description	Full Length

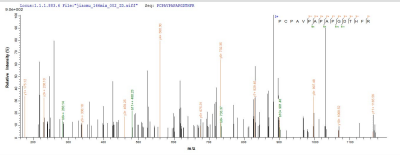
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP022388HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) SOCS1.



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Description

The preparation of this recombinant Human SOCS1 protein was to use gene recombination DNA technology to obtain a recombinant vector connected with a SOCS1 fragment (1-211aa) that could be translated into the SOCS1 protein and then transferred it into E.coli cells to express the recombinant SOCS1 protein molecule. In order to get the target protein with high purity, N-terminal 6xHis tag was used in the production. The purity is 90% determined by SDS-PAGE.

SOCS1 is a member of the STAT-induced STAT inhibitor (SSI), also known as suppressor of cytokine signaling (SOCS), family. It is highly conserved among various species, including human, chimpanzee, dog, cow, rat and chicken. SOCS1 was also involved in E3 ubiquitin ligases complex, acting as substrate-recognition modules to mediate the polyubiquitination and subsequent degradation of substrate proteins which may be the key components of cytokine signal transduction pathways. Both two functions of SOC1 are very important to regulate the growth and proliferation of cell. Therefore, numerous studies have speculated that SOCS1 may play a role in regulating tumor growth and proliferation, such as hepatocellular carcinoma, melanoma, gastric cancer, prostate cancer and so on.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.