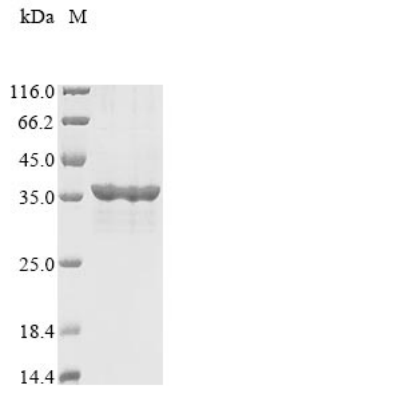
Recombinant Human SPRY domain-containing SOCS box protein 1 (SPSB1)

Product Code	CSB-EP853389HU
Abbreviation	Recombinant Human SPSB1 protein
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.	Q96BD6
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MGQKVTGGIKTVDMRDPTYRPLKQELQGLDYCKPTRLDLLLDMPPVSYDVQL LHSWNNNDRSLNVFVKEDDKLIFHRHPVAQSTDAIRGKVGYTRGLHVWQITW AMRQRGTHAVVGVATADAPLHSVGYTTLVGNNHESWGWDLGRNRLYHDGK NQPSKTYPAFLEPDETFIVPDSFLVALDMDDGTLSFIVDGQYMGVAFRGLKGK KLYPVVSAVWGHCEIRMRYLNGLDPEPLPLMDLCRRSVRLALGRERLGEIHTL PLPASLKAYLLYQ
Research Area	Others
Source	E.coli
Target Names	SPSB1
Expression Region	1-273aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	36.0 kDa
Protein Length	Full Length
Image	



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

Description

Recombinant Human SPRY domain-containing SOCS box protein 1 (SPSB1) is produced in E. coli and includes the complete sequence spanning 1-273 amino acids. The protein comes with an N-terminal 10xHis-tag and a C-terminal Myc-tag, which makes purification and detection more straightforward. Purity levels appear to exceed 85%, based on SDS-PAGE analysis. This product is designed strictly for research purposes and may provide consistent results in experimental settings.

SPSB1 belongs to the suppressor of cytokine signaling (SOCS) box protein family. This protein family is recognized for its role in regulating different signaling pathways. SPSB1 seems to interact with components of the ubiquitin-proteasome system, potentially affecting how proteins get degraded. Research suggests SPSB1 plays an important role in cellular signaling, which could make it a valuable tool for studying protein regulation and signaling dynamics.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Protein-Protein Interaction Studies Using Pull-Down Assays

This dual-tagged SPSB1 protein offers useful options for exploring protein-protein interactions through pull-down experiments. The His-tag allows researchers to immobilize the protein on nickel-affinity resins. Meanwhile, the Myc-tag helps with detection and confirms that protein capture has occurred. Scientists can use this full-length recombinant protein (1-273aa) to hunt for new binding partners or verify known interactions with other SOCS box family members or E3 ligase components. The 85% purity level appears adequate for interaction studies where the protein acts as bait in biochemical assays.

2. Antibody Development and Validation

Researchers may find this recombinant SPSB1 protein useful as an antigen for creating specific antibodies against human SPSB1. It might also work well for

validating antibodies that already exist. Since it's the full-length protein, it offers multiple epitopes for antibody recognition. This characteristic likely makes it suitable for both polyclonal and monoclonal antibody production. The dual-tag system appears to simplify purification and quality control during antibody screening. Scientists can probably use this protein in ELISA-based assays to assess antibody specificity and binding strength.

3. Biochemical Characterization and Stability Studies

This recombinant SPSB1 protein could work well for detailed biochemical characterization. Such studies might include thermal stability analysis, pH tolerance testing, and buffer optimization experiments. Researchers can track the protein's behavior under different conditions by using the Myc-tag for detection in Western blot analyses. These kinds of studies would likely reveal fundamental information about SPSB1 protein properties. They might also help establish the best storage and handling conditions for future research work.

4. In Vitro Binding Assays with Tagged Detection

The C-terminal Myc-tag makes it possible to develop sandwich-type binding assays. In these assays, SPSB1 interactions can be detected using anti-Myc antibodies. This method seems particularly helpful for studying dose-dependent binding relationships and competitive binding experiments. At the same time, the His-tag allows for protein immobilization. Together, these features create what appears to be a flexible experimental system for quantitative interaction studies that rely on colorimetric or fluorescent detection methods.

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.
Shelf Life	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.