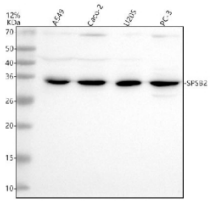
SPSB2 Antibody / SplA/Ryanodine receptor domain and SOCS box containing protein 2 (FY13070)

Catalog No.	Formulation	Size
FY13070	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q99619
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This SPSB2 antibody is available for research use only.



Western blot analysis of SPSB2 using anti-SPSB2 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human whole cell lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human U2OS whole cell lysates, Lane 4: human PC-3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SPSB2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. The expected molecular weight of SPSB2 is ~29 kDa.

Description

SPSB2 antibody detects SplA/Ryanodine receptor domain and SOCS box containing protein 2, an adaptor molecule involved in ubiquitin-mediated proteasomal degradation. The UniProt recommended name is SplA/Ryanodine receptor

domain and SOCS box containing protein 2 (SPSB2). This cytoplasmic protein interacts with substrate proteins through its SPRY domain and recruits E3 ubiquitin ligase complexes via its SOCS box, promoting targeted protein turnover.

Functionally, SPSB2 antibody identifies a 293-amino-acid protein that regulates signaling through inducible nitric oxide synthase (iNOS), erythropoietin, and other cytokine-related pathways. SPSB2 binds iNOS, targeting it for proteasomal degradation, thereby controlling nitric oxide production and inflammatory responses. Through this mechanism, SPSB2 contributes to feedback inhibition in immune signaling and maintains cellular redox balance.

The SPSB2 gene is located on chromosome 12q24.31 and encodes a member of the SPSB family, which includes SPSB1, SPSB3, and SPSB4. Each family member functions as an adaptor in ubiquitin ligase complexes, characterized by their conserved SPRY and SOCS domains. SPSB2 expression is high in macrophages, spleen, and liver, reflecting its role in immune regulation and metabolic processes.

Pathologically, dysregulated SPSB2 activity affects nitric oxide signaling, contributing to inflammatory disorders, cancer progression, and metabolic stress. By promoting degradation of iNOS, SPSB2 helps terminate inflammatory responses and prevent tissue damage. Reduced SPSB2 levels may prolong nitric oxide signaling, leading to oxidative stress or chronic inflammation.

SPSB2 antibody is suitable for western blotting, immunohistochemistry, and immunoprecipitation to study protein degradation mechanisms, immune signaling, and nitric oxide regulation. NSJ Bioreagents provides validated SPSB2 antibody reagents optimized for research in protein ubiquitination, cytokine signaling, and inflammation control.

Structurally, SPSB2 contains an N-terminal SPRY domain mediating substrate recognition and a C-terminal SOCS box that binds elongin B/C, Cullin 5, and Rbx2 to assemble an E3 ligase complex. This modular configuration enables selective targeting of regulatory proteins for degradation, linking SPSB2 to diverse cellular pathways governing inflammation and metabolism.

Application Notes

Optimal dilution of the SPSB2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SPSB2 recombinant protein (Position: Q17-Q263) was used as the immunogen for the SPSB2 antibody.

Storage

After reconstitution, the SPSB2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.