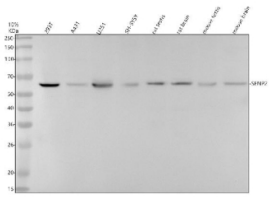
SENP2 Antibody / Small ubiquitin-related modifier 1 [clone 24S77] (FY13422)

Catalog No.	Formulation	Size
FY13422	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	24S77
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9HC62
Applications	Western Blot: 1:500-1:2000
Limitations	This SENP2 antibody is available for research use only.



Western blot analysis of SENP2 expression using anti-SENP2 antibody. Cell lysates include HEK293T, A431, U251, SH-SY5Y, rat testis, rat brain, mouse testis, and mouse brain. A specific band is detected at approximately 68 kDa, consistent with the predicted molecular weight of SENP2.

Description

SENP2 antibody recognizes SUMO-specific protease 2 (SENP2), a cysteine protease that plays a central role in regulating protein sumoylation dynamics within the cell. SENP2 belongs to the sentrin-specific protease family and is

responsible for both the maturation of SUMO precursors and the removal of SUMO modifications from target proteins. Through these activities, SENP2 controls the balance between sumoylated and de-sumoylated protein states, influencing numerous cellular processes including transcription, cell cycle progression, and stress responses.

SENP2 is primarily localized to the nucleus, where it associates with nuclear pore complexes and chromatin-associated protein assemblies. Its positioning allows SENP2 to regulate sumoylation of transcription factors, chromatin modifiers, and nuclear structural proteins. By reversing SUMO conjugation, SENP2 modulates protein stability, subcellular localization, and protein-protein interactions. A SENP2 antibody supports research into how dynamic SUMO cycling fine-tunes nuclear signaling and gene regulation.

Functionally, SENP2 acts as a regulatory checkpoint within the SUMO pathway. It processes immature SUMO proteins to expose the C-terminal diglycine motif required for conjugation, while also cleaving SUMO from modified substrates. This dual activity enables SENP2 to influence both the availability of SUMO and the duration of SUMO-dependent signaling events. SENP2-mediated desumoylation is particularly important during cellular stress, mitosis, and differentiation, where rapid changes in protein modification status are required for adaptive responses.

SENP2 expression has been observed across multiple tissues, reflecting its involvement in fundamental cellular functions. Alterations in SENP2 expression or activity have been linked to dysregulated transcriptional control and aberrant cell cycle regulation. In disease-related research, SENP2 has been studied in the context of cancer and cardiovascular biology, where changes in SUMO signaling can affect cell proliferation, survival, and stress tolerance. Monitoring SENP2 expression provides insight into how SUMO-dependent pathways contribute to normal physiology and disease-associated signaling changes.

At the molecular level, the SENP2 gene encodes a protein of approximately 65 kDa that contains a conserved catalytic domain required for SUMO protease activity. Proper SENP2 function depends on its precise subcellular localization and interaction with SUMO-modified substrates. Disruption of SENP2-mediated desumoylation can lead to accumulation of SUMO-conjugated proteins and altered regulatory outcomes. A SENP2 antibody enables detection and analysis of SENP2 expression in research applications focused on post-translational modification, nuclear signaling, and SUMO pathway regulation, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the SENP2 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Small ubiquitin-related modifier 1 protein was used as the immunogen for the SENP2 antibody.

Storage

Store the SENP2 antibody at -20oC.

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