

SUMO-4 (Z-22): sc-130885

BACKGROUND

The small ubiquitin-related modifier (SUMO) proteins, which include SUMO-1, SUMO-2, SUMO-3 and SUMO-4, belong to the ubiquitin-like protein family. Like ubiquitin, the SUMO proteins are synthesized as precursor proteins that undergo processing before conjugation to target proteins. Ubiquitin and SUMO proteins utilize the E1, E2 and E3 cascade enzymes for conjugation. However, SUMO and ubiquitin differ with respect to targeting. Ubiquitination predominantly targets proteins for degradation, whereas sumoylation targets proteins for a variety of cellular processing, including nuclear transport, transcriptional regulation, apoptosis and protein stability. The unconjugated SUMO-1, SUMO-2, SUMO-3 and SUMO-4 proteins localize to the nucleus. In contrast to the other SUMO proteins, SUMO-4 seems to be insensitive to sentrin-specific proteases due to the presence of Pro-90, which may impair processing to mature form and conjugation to substrates. It is suggested that defects in the gene that encodes for the SUMO-4 protein may be involved in the pathogenesis of type I diabetes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SUMO4 (human) mapping to 6q25.1.

SOURCE

SUMO-4 (Z-22) is a purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SUMO-4 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SUMO-4 (Z-22) is recommended for detection of SUMO-4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SUMO-4 siRNA (h): sc-106583, SUMO-4 shRNA Plasmid (h): sc-106583-SH and SUMO-4 shRNA (h) Lentiviral Particles: sc-106583-V.

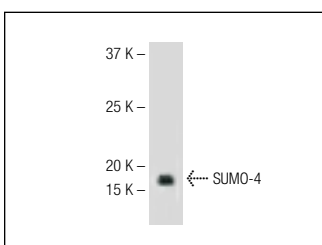
Molecular Weight of SUMO-4: 11 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



SUMO-4 (Z-22): sc-130885. Western blot analysis of SUMO-4 expression in Hep G2 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **SUMO-2/3/4 (C-3): sc-393144**, our highly recommended monoclonal alternative to SUMO-4 (Z-22). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SUMO-2/3/4 (C-3): sc-393144**.