

USP31 (E-18): sc-82090

BACKGROUND

The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. Through the use of a wide range of enzymes that can add or remove ubiquitin, the Ub pathway controls many intracellular processes such as signal transduction, transcriptional activation and cell cycle progression. USP31 (ubiquitin specific peptidase 31) is a 1,352 amino acid protein that belongs to the peptidase C19 family of proteins. Expressed in a wide variety of tissues, USP31 localizes to the nucleus and functions as a deubiquitinating enzyme that cleaves ubiquitin residues from both ubiquitinated proteins and ubiquitin-fused precursors, thereby saving these proteins from proteasomal degradation. Two isoforms of USP31 are expressed due to alternative splicing events.

REFERENCES

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3. Quesada, V., Díaz-Perales, A., Gutiérrez-Fernández, A., Garabaya, C., Cal, S. and López-Otín, C. 2004. Cloning and enzymatic analysis of 22 novel human ubiquitin-specific proteases. *Biochem. Biophys. Res. Commun.* 314: 54-62.
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CHROMOSOMAL LOCATION

Genetic locus: USP31 (human) mapping to 16p12.2; Usp31 (mouse) mapping to 7 F2.

SOURCE

USP31 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of USP31 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82090 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

USP31 (E-18) is recommended for detection of USP31 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other USP family members.

USP31 (E-18) is also recommended for detection of USP31 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for USP31 siRNA (h): sc-76837, USP31 siRNA (m): sc-76838, USP31 shRNA Plasmid (h): sc-76837-SH, USP31 shRNA Plasmid (m): sc-76838-SH, USP31 shRNA (h) Lentiviral Particles: sc-76837-V and USP31 shRNA (m) Lentiviral Particles: sc-76838-V.

Molecular Weight of USP31: 147 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **USP31 (4F2): sc-100634**, our highly recommended monoclonal alternative to USP31 (E-18).