

# USP51 (N-20): sc-82416

## BACKGROUND

The ubiquitin pathway involves three sequential enzymatic steps that facilitate the conjugation of ubiquitin and ubiquitin-like molecules to specific protein substrates. Through the use of a wide range of enzymes that can add or remove ubiquitin, the ubiquitin pathway controls many intracellular processes such as signal transduction, transcriptional activation and cell cycle progression. USP51 (ubiquitin specific processing protease 51), also designated ubiquitin carboxyl-terminal hydrolase 51, ubiquitin thioesterase 51 or deubiquitinating enzyme 51, is a 711 amino acid protein that belongs to the peptidase C19 family. Expressed in prostate, brain, lung, aorta and kidney, USP51 functions to catalyze the conversion of a ubiquitin C-terminal thioester and water to free ubiquitin and a thiol, a reaction that may play a role in signaling events throughout the cell.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: USP51 (human) mapping to Xp11.21.

## SOURCE

USP51 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of USP51 of human origin.

## STORAGE

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

## 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-82416 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

USP51 (N-20) is recommended for detection of USP51 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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.

Suitable for use as control antibody for USP51 siRNA (h): sc-76871, USP51 shRNA Plasmid (h): sc-76871-SH and USP51 shRNA (h) Lentiviral Particles: sc-76871-V.

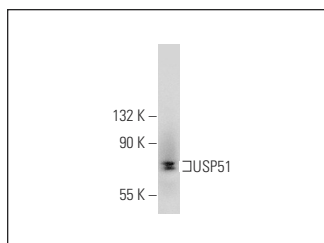
Molecular Weight of USP51: 80 kDa.

Positive Controls: human prostate extract: sc-363774.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



USP51 (N-20): sc-82416. Western blot analysis of USP51 expression in human prostate tissue extract.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.