

USP54 (N-15): sc-104742

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. USP54 (ubiquitin specific peptidase 54) is a 1,684 amino acid protein that belongs to the peptidase C19 family. Weakly expressed in a few tissues, USP54 contains an inactive ubiquitin carboxyl-terminal hydrolase domain, a katanin-like ATPase KATNAL1 motif and an uncharacterized peptide stretch containing a VPS9 domain. USP54 is encoded by a gene located on human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: USP54 (human) mapping to 10q22.2; Usp54 (mouse) mapping to 14 A3.

SOURCE

USP54 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of USP54 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.

RESEARCH USE

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

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-104742 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

USP54 (N-15) is recommended for detection of USP54 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 isoforms USP54-2 or USP54-3.

USP54 (N-15) is also recommended for detection of USP54 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for USP54 siRNA (h): sc-90431, USP54 siRNA (m): sc-106684, USP54 shRNA Plasmid (h): sc-90431-SH, USP54 shRNA Plasmid (m): sc-106684-SH, USP54 shRNA (h) Lentiviral Particles: sc-90431-V and USP54 shRNA (m) Lentiviral Particles: sc-106684-V.

Molecular Weight of USP54: 71 kDa.

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.

PROTOCOLS

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