

# USP52 (C-20): sc-82110

## 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. USP52 (ubiquitin specific peptidase 52), also known as PAN2 (PAB-dependent poly(A)-specific ribonuclease subunit 2), is a 1,202 amino acid cytoplasmic and nuclear protein belonging to the peptidase C19 family. Containing one exonuclease domain, USP52 is involved in cytoplasmic mRNA decay. USP52 is a component of the Pan nuclease complex, which shortens poly(A) tails of RNA when the poly(A) stretch is bound by the polyadenylate-binding protein.

## CHROMOSOMAL LOCATION

Genetic locus: PAN2 (human) mapping to 12q13.3; Pan2 (mouse) mapping to 10 D3.

## SOURCE

USP52 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of USP52 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-82110 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

USP52 (C-20) is recommended for detection of USP52 of mouse, rat and 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.

USP52 (C-20) is also recommended for detection of USP52 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for USP52 siRNA (h): sc-76873, USP52 siRNA (m): sc-76874, USP52 shRNA Plasmid (h): sc-76873-SH, USP52 shRNA Plasmid (m): sc-76874-SH, USP52 shRNA (h) Lentiviral Particles: sc-76873-V and USP52 shRNA (m) Lentiviral Particles: sc-76874-V.

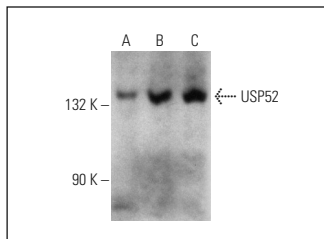
Molecular Weight of USP52: 135 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

## 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



USP52 (C-20): sc-82110. Western blot analysis of USP52 expression in HeLa (A), Jurkat (B) and K-562 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Wang, X., et al. 2014. N6-methyladenosine-dependent regulation of messenger RNA stability. *Nature* 505: 117-120.

## STORAGE

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

## PROTOCOLS

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


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Try **USP52 (6A7): sc-517176**, our highly recommended monoclonal alternative to USP52 (C-20).