

# USP14 (h2): 293T Lysate: sc-174419

## 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. USP14 (ubiquitin specific peptidase 14), also known as TGT (tRNA-guanine transglycosylase), is a cytoplasmic protein that belongs to the ubiquitin-specific processing family of deubiquitinating enzymes. Existing as a homodimer within the cell, USP14 functions to cleave ubiquitin residues from both ubiquitinated proteins and ubiquitin-fused precursors, thereby saving these proteins from proteasomal degradation. In mice, defects or mutations in the gene encoding USP14 cause retarded growth or fetal death, indicating that USP14 plays a key role in early developmental processes. Multiple isoforms of USP14 are expressed due to alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: USP14 (human) mapping to 18p11.32.

## PRODUCT

USP14 (h2): 293T Lysate represents a lysate of human USP14 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

USP14 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive USP14 antibodies. Recommended use: 10-20 µl per lane.

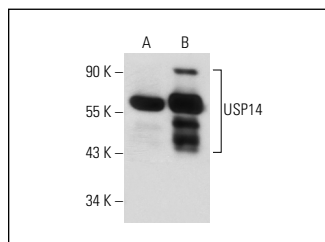
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

USP14 (C-5): sc-515812 is recommended as a positive control antibody for Western Blot analysis of enhanced human USP14 expression in USP14 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

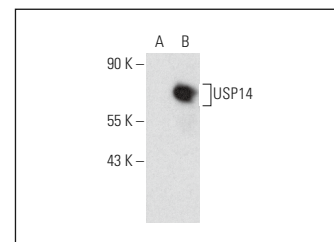
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



USP14 (6E6): sc-100630. Western blot analysis of USP14 expression in non-transfected: sc-117752 (A) and human USP14 transfected: sc-174419 (B) 293T whole cell lysates.



USP14 (C-5): sc-515812. Western blot analysis of USP14 expression in non-transfected: sc-117752 (A) and human USP14 transfected: sc-174419 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## 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) for detailed protocols and support products.