# USP13 (h5): 293T Lysate: sc-174342



The Power to Question

#### **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. USP13 (ubiquitin specific peptidase 13), also known as ISOT3 (isopeptidase T-3), is an 863 amino acid protein that belongs to the peptidase C19 family and contains one UBP-type zinc finger and two UBA domains. Highly expressed in testicular and ovarian tissue, USP13 functions to catalyze the water-dependent conversion of a ubiquitin C-terminal thioester to a thiol and a free ubiquitin.

#### **REFERENCES**

- D'Andrea, A. and Pellman, D. 1998. Deubiquitinating enzymes: a new class of biological regulators. Crit. Rev. Biochem. Mol. Biol. 33: 337-352.
- Timms, K.M., Ansari-Lari, M.A., Morris, W., Brown, S.N. and Gibbs, R.A. 1998. The genomic organization of Isopeptidase T-3 (ISOT-3), a new member of the ubiquitin specific protease family (UBP). Gene 217: 101-106.
- 3. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603591. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 4. Southan, C. 2001. A genomic perspective on human proteases. FEBS Lett. 498: 214-218.
- Puente, X.S., Sánchez, L.M., Overall, C.M. and López-Otín, C. 2003. Human and mouse proteases: a comparative genomic approach. Nat. Rev. Genet. 4: 544-558.
- Quesada, V., Díaz-Perales, A., Gutierrez-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.
- 7. Catic, A., Fiebiger, E., Korbel, G.A., Blom, D., Galardy, P.J. and Ploegh, H.L. 2007. Screen for ISG15-crossreactive deubiquitinases. PLoS ONE 2: e679.

# **CHROMOSOMAL LOCATION**

Genetic locus: USP13 (human) mapping to 3q26.33.

#### **PRODUCT**

USP13 (h5): 293T Lysate represents a lysate of human USP13 transfected 293T cells and is provided as 100  $\mu g$  protein in 200  $\mu l$  SDS-PAGE buffer.

## **APPLICATIONS**

USP13 (h5): 293T Lysate is suitable as a Western Blotting positive control for human reactive USP13 antibodies. Recommended use: 10-20 µl per lane.

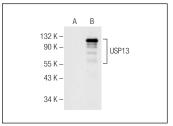
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

USP13 (D-11): sc-390316 is recommended as a positive control antibody for Western Blot analysis of enhanced human USP13 expression in USP13 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-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### **DATA**



USP13 (D-11): sc-390316. Western blot analysis of USP13 expression in non-transfected: sc-117752 (**A**) and human USP13 transfected: sc-174342 (**B**) 293T whole cell Ivsates.

#### **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 for detailed protocols and support products.

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