

# USP2 Antibody (Ubiquitin specific protease 2)

Cat. # AB501

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## Background

USP2 core represents the common catalytic core domain of the two isoforms of USP2, USP2a and USP2b1. *In vitro* studies revealed that the USP2 core was able to deubiquitylate high molecular weight proteins from testis extracts and cleave Ub-PLA2 with efficiently<sup>2,3</sup>. USP2a is androgen-regulated, overexpressed in prostate tumors and has been reported to serve an antiapoptotic function in prostate cancer<sup>4</sup>. Furthermore, ectopic expression of USP2a in non-transformed cells promotes oncogenic behavior *in vitro* and *in vivo*<sup>5</sup>. Notably, Priolo *et al* also demonstrated that the E3 ubiquitin ligase Hdm2 was deubiquitylated by USP2a.

**Alternate Names:** 41 kDa ubiquitin-specific protease, Deubiquitinating enzyme 2, Ubiquitin carboxyl-terminal hydrolase 2, Ubiquitin-specific-processing protease 2, Ubiquitin thioesterase 2, UBP41, USP9

**Molecular Weight:** 40kDa

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## Specificity/Applications

**Species Cross Reactivity:** Human

**Source:** Chicken

**Applications:** WB

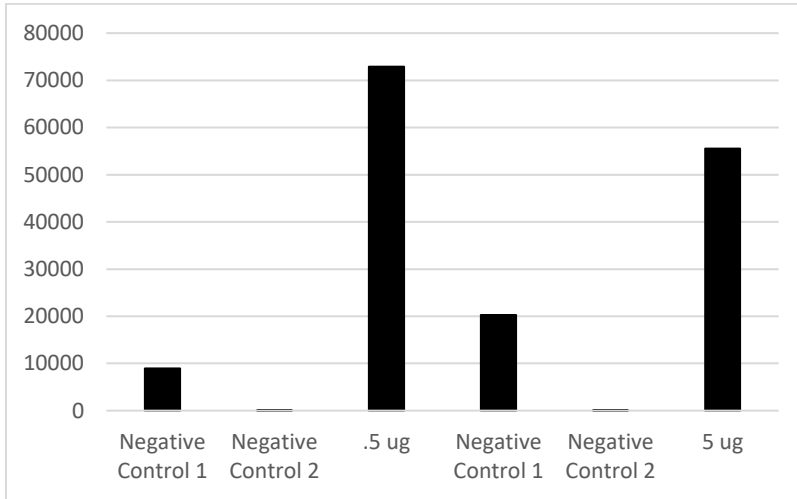
**Recommended Antibody Dilutions:**

Western Blotting: Robust detection of 0.5ug of recombinant protein was possible when antibody was used at a final concentration of 18.71µg/mL

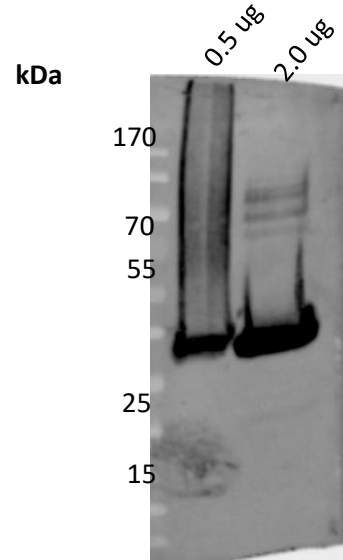
**Storage:** Supplied in phosphate buffered saline. Store at -20°C or below. Avoid repeated freeze/thaw cycles.

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## Detection of USP2core by AB501 using ELISA and Western Blot



0.5 or 5 ug of USP2core was coated on ELISA plate. Subsequently, unbound proteins were washed away and blocked with BSA. USP2core was detected by 3.74 ug/mL of AB501 using traditional ELISA detection reagent. 2<sup>o</sup> Antibody:  $\alpha$ -Chicken HRP (1:5000). Negative Control 1: No AB501 Negative Control 2: no detection reagent.



Indicated amounts of USP2core were loaded on SDS-PAGE gel followed by Western Blot. The blot was detected by 18.71 ug/mL of AB501. 2<sup>o</sup> Antibody:  $\alpha$ -Chicken HRP (1:5000).

## References

- 1) Nicholson, B., et al., *Characterization of ubiquitin and ubiquitin-like-protein isopeptidase activities*. Protein Sci, 2008.
- 2) Priolo, C., et al., *The Isopeptidase USP2a Protects Human Prostate Cancer from Apoptosis*. Cancer Res, 2006. 66(17): p. 8625-32
- 3) Graner, E., et al., *The isopeptidase USP2a regulates the stability of fatty acid synthase in prostate cancer*. Cancer Cell, 2004. 5(3): p. 253-61.
- 4) Lin, H., et al., *Divergent N-terminal sequences of a deubiquitinating enzyme modulate substrate specificity*. J Biol Chem, 2001. 276(23): p. 20357-63.
- 5) Lin, H., et al., *Divergent N-terminal sequences target an inducible testis deubiquitinating enzyme to distinct subcellular structures*. Mol Cell Biol, 2000. 20(17): p. 6568-78.

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