

USP2core (Ubiquitin specific protease 2)

Cat. # DB501

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 good efficiency^{2,3}. USP2a is androgen-regulated and overexpressed in prostate tumors and has been reported to serve an antiapoptotic function in prostate cancer⁴. Furthermore, ectopic expression of USP2a in nontransformed cells promotes oncogenic behavior *in vitro* and *in vivo*⁵. 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

Product Information

Molecular Weight:	40kDa
Quantity:	25µg
Physical State:	Liquid
Source:	Human Recombinant
Tag:	His6
Activity:	This enzyme is active in the Ub-CHOP assay.
Storage:	-80° C. Avoid repeated freeze/thaw cycles

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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