

USP5 Antibody (Ubiquitin-specific-processing protease 5)

Cat. # AB512

Background

USP5 (Isopeptidase T; IsoT) is a homolog of *S. cerevisiae* UBP14 which is responsible for the deconjugation of the majority of unanchored polyubiquitin chains¹. USP5 is a Zn finger containing deubiquitylating enzyme that releases one ubiquitin at a time from the proximal end of the chain^{2,3}. Full length USP5 mediated cleavage of Ub-PLA₂ is significantly enhanced by low concentrations of mono ubiquitin⁴.

Target Alternate Names:: Deubiquitinating enzyme 5, Isopeptidase T, IsoT, ISOT, Ubiquitin carboxyl-terminal hydrolase 5, Ubiquitin-specific-processing protease 5, Ubiquitin thioesterase 5

Target Molecular Weight: 94kDa

Product Information

Description: Chicken, polyclonal antibody to USP5 (isoT)

Species Cross Reactivity: Human

Source: Chicken

Applications: WB

Recommended Antibody Dilutions:

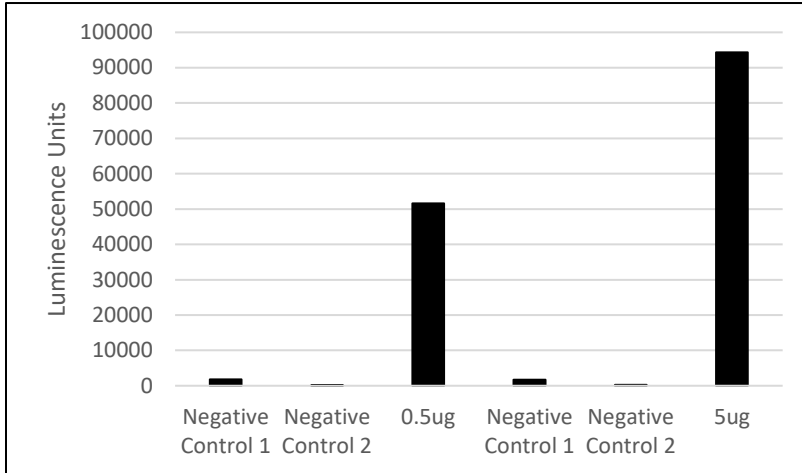
Western Blotting: Robust detection of 2.0ug of recombinant protein was possible when antibody was used at a final concentration of 3.0µg/mL

Storage: Store at -20°C; Avoid repeated freeze thaw. Supplied in phosphate buffered saline pH 7.4.

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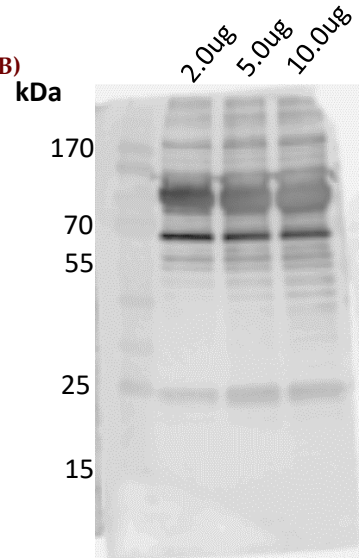
Detection of USP5 by AB512 using ELISA (A) and Western Blot (B)

(A)



0.5 or 5 ug of USP5 was coated on ELISA plate. Subsequently, unbound proteins were washed away and blocked with BSA. USP5 was detected by 3.0 ug/mL of AB512 using traditional ELISA detection reagent. 2^o Antibody: α -Chicken HRP (1:5000). Negative Control 1: No AB512; Negative Control 2: no detection reagent. 2^o Antibody: α -Chicken HRP (1:5000).

(B)



Indicated amounts of USP5 were loaded on SDS-PAGE gel followed by Western Blot. The blot was detected by 3.0 ug/mL of AB512.

References

- 1) Nicholson, B., et al., Characterization of ubiquitin and ubiquitin-like-protein isopeptidase activities. *Protein Sci*, 2008.
- 2) Reyes-Turcu, F.E., et al., The ubiquitin binding domain ZnF UBP recognizes the C-terminal diglycine motif of unanchored ubiquitin. *Cell*, 2006. 124(6): p. 1197-208.
- 3) Amerik, A., et al., In vivo disassembly of free polyubiquitin chains by yeast Ubp14 modulates rates of protein degradation by the proteasome. *Embo J*, 1997. 16(16): p. 4826-38.
- 4) Wilkinson, K.D., et al., Metabolism of the polyubiquitin degradation signal: structure, mechanism, and role of isopeptidase T. *Biochemistry*, 1995. 34(44): p. 14535-46.

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