

USP14 Antibody (Ubiquitin-specific-processing protease 14)

Cat. # AB505

Background

USP 14 is a ubiquitin specific protease that associates with the proteasome. This association with the proteasome has been shown to enhance the enzymatic activity of the proteasome^{1,2}. Recent studies have demonstrated that USP14 expression in certain cancers correlates with metastasis³. Using a chemical probe researchers have shown that USP14 can interact with ISG15, a ubiquitin-like protein ⁴.

Activity: This enzyme cleaves K48- and K63-linked ubiquitin chains in vitro.

Target Alternate Names: Deubiquitinating enzyme 14, TGT, Ubiquitin carboxyl-terminal hydrolase 14, Ubiquitin-specific processing protease 14, Ubiquitin thioesterase 14

Target Molecular Weight: 68kDa

Product Information

Description: Chicken, IgY, polyclonal antibody to USP14

Species Cross Reactivity: Human

Source: Chicken

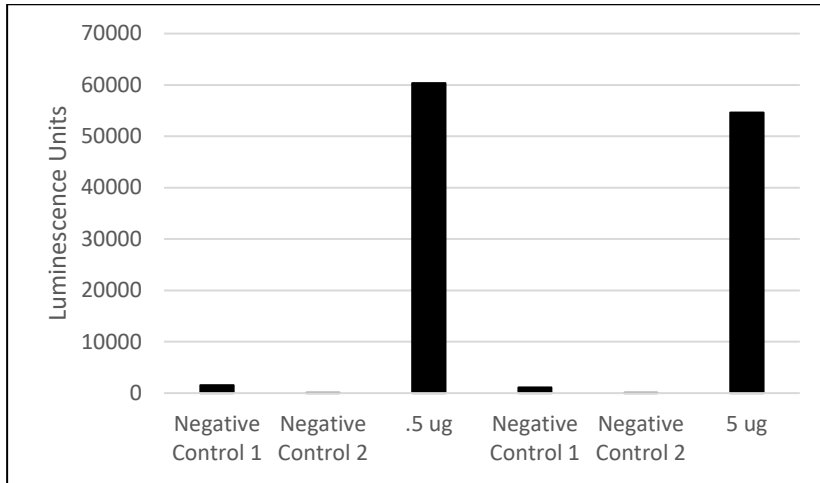
Applications: WB

Recommended Antibody Dilutions:

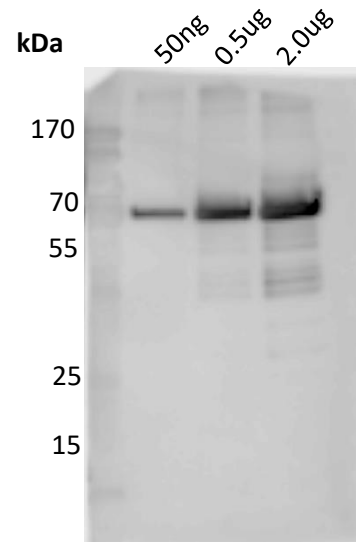
Western Blotting: Robust detection of 50ng of recombinant protein was possible when antibody was used at a final concentration of 8.14µg/mL

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

Detection of USP14 by AB505 using ELISA and Western Blot



0.5 or 5 ug of USP14 was coated on ELISA plate. Subsequently, unbound proteins were washed away and blocked with BSA. USP14 was detected by 1.63 ug/mL of AB505 tradition ELISA detection reagent. Secondary Antibody: α -Chicken HRP (1:5000). Negative Control 1: No AB505 Negative Control 2: no detection reagent.



Indicated amounts of USP14 were loaded on SDS-PAGE gel followed by Western Blot. The blot was detected by 8.14 ug/mL of AB505. 2^o Antibody: α -Chicken HRP (1:5000).

References

- 1) Catic, A. et al. Screen for ISG15-crossreactive deubiquitinases. PLoS ONE. 2007. 2(7):e679.
- 2) Shinji, S. et al. Ubiquitin-specific protease 14 expression in colorectal cancer is associated with liver and lymph node metastases. Oncol Rep. 2006. 15(3): p539-43.
- 3) Hu, M. et al. Structure and mechanisms of the proteasome-associated deubiquitinating enzyme USP14. EMBO J. 2005. 24(21): p3747-56
- 4) Borodovsky, A. et al. A novel active site-directed probe specific for deubiquitylating enzymes reveals proteasome association of USP14. EMBO J. 2001. 20(18): p5187-96.

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