Anti-Rpn12 (*S.cerevisiae*) antibody, affinity purified

62-209　50 ul

Background: The 26 S proteasome is a protein complex with a molecular mass of ~2,000 kDa. It is essential not only for eliminating damaged or misfolded proteins but also for degrading short lived regulatory proteins involved in cell cycle regulation, DNA repair, signal transduction, apoptosis, and metabolic regulation (ref.1). The 26S proteasome is composed of the 20S core particle (CP) and the 19S regulatory particle (RP). The RP is further subdivided into lid and base sub-complexes. **Rpn12** is one of the non-ATPase subunits of the lid. **Rpn12** interacts with an ATPase subunit, Rpt1, of the base. **Rpn12**, Rpt1 double mutant becomes lethal, suggesting a strong interaction between **Rpn12** and Rpt1. In the double mutant cells, the function of the 26S proteasome is completely eliminated.

Applications:

1) Western blotting (1/5,000~1/10,000)

2) Immunoprecipitation　　Other applications have not been tested.

Product: Rabbit polyclonal antibody affinity purified

Immunogen: Recombinant yeast Rpn12 expressed in *E. coli*

Form: Affinity purified IgG in PBS, 1 mg/ml BSA, 0.09 % sodium azide, 50% glycerol

Reactivity: *S. cerevisiae* Rpn12, not tested with other species

Storage: Sent at 4℃ or -20℃ and stored at -20℃

Data Link SGD RPN12/YFR052W

References: This antibody has been used in Ref. 2.

1. Hershko A and Ciechanover A "THE UBIQUITIN SYSTEM." *Annu. Rev. Biochem.* **67,** 425-479 (1998) PMID: 9759494
2. Takeuchi J and Toh-e A "Genetic evidence for interaction between components of the yeast 26S proteasome: combination of a mutation in RPN12 (a lid component gene) with mutations in RPT1 (an ATPase gene) causes synthetic lethality." *Mol Gen Genet* **262**:145-153 (1999) PMID: 10503546
3. Tone Y *et al* "Nob1p, a new essential protein, associates with the 26S proteasome of growing saccharomyces cerevisiae cells." *Gene* **243**: 37-45 (2000) PMID: 10675611

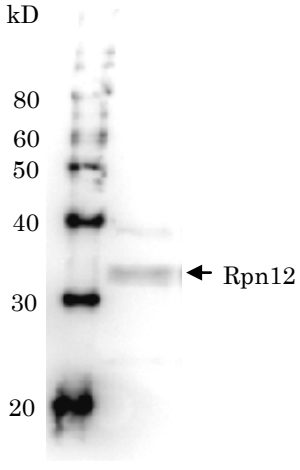

Fig.1 Detection of Rpn12 (32kD) in the crude extract of *S. cerevisiae* by Western blotting using this antibody.

Related products: # 62-201 anti-Rpn3, #62-203 anti-Rpn5, #62-205 anti-Rpn7, #62-207 anti-Rpn9, #62-211 anti-Nob1, #62-213 anti-Nas6, #62-215 anti-Tem1

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