Anti-Pad1 (*S. pombe*) antibody, rabbit serum

63-133　100 µl

Schizosaccharomyces pombe **Pad1**, a 35 kDa protein, is a component of the 26S proteasome which is involved in the ATP-dependent degradation of ubiquitinated proteins. Transcription factor Pap1 is controlled by the functional interaction between the positive regulator **Pad1** and negative regulator Crm1. Both proteins are essential for cell viability and for the maintenance of chromosome structure. **Pad1** is also responsible for resistance to staurosporine, and other drugs such as cycloheximide and caffeine.

Applications:

1. Immunoblotting (dilution: 1/300~1/1000)
2. Immunoprecipitation

Immunogen: Recombinant *S. pombe* full-length Pad1

Specificity: Specific to *S. pombe*

Form: Rabbit antiserum added with 0.05 % sodium azide

Storage: Shipped at 4℃ and stored at -20℃

Data Link: Swiss-Prot P41878

References: This antibody has been used in Ref. 1, 2 and 3.

1. Shimanuki M *et al.* "A novel essential fission yeast gene pad1$^+$ positively regulates pap1$^+$-dependent transcription and is implicated in the maintenance of chromosome structure." *J Cell Sci* **108**: 569-579 (1995) PMID: 7769002
2. Tatebe H and Yanagida M "Cut8, essential for anaphase, controls localization of 26S proteasome, facilitating destruction of cyclin and Cut2." *Curr Biol.* **10**:1329-1338 (2000) PMID: 11084332
3. Takeda K and Yanagida M "Regulation of nuclear proteasome by Rhp6/Ubc2 through ubiquitination and destruction of the sensor and anchor Cut8." *Cell* **122**:393-405 (2005) PMID: 16096059

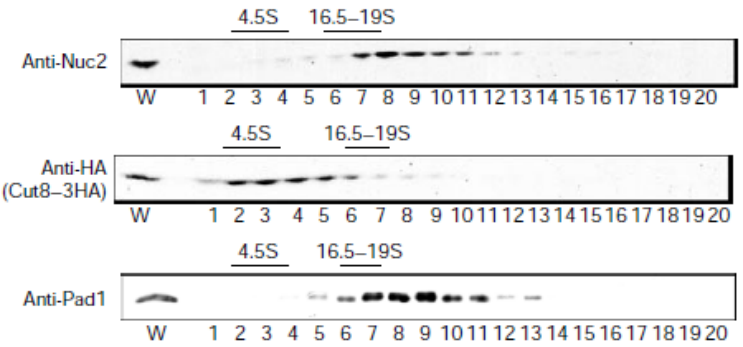

Fig.1 Fractions from sucrose gradient centrifugation of wild type *S. pombe* cells containing integrated Cut8-3HA were immunoblotted using antibodies Nuc2, Pad1 and HA (ref.2).

Cut8 protein forms a broad peak around 4-15S (middle panel), distinct from the peak of 20S cyclosome (top panel) and 26S proteasome (bottom panel). Nuc2 and Pad1 are the subunits of cyclosome and proteasome, respectively.

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