Bio Academia
Manufacturer

AS ONE

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

Specification

Immunogen: Recombinant *S. pombe* full-length Pad1
Specificity**:** Specific to *S. pombe*
Form: Rabbit antiserum with 0.05 % sodium azide
Storage: Ship at 4°C and long term storage at -20°C

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

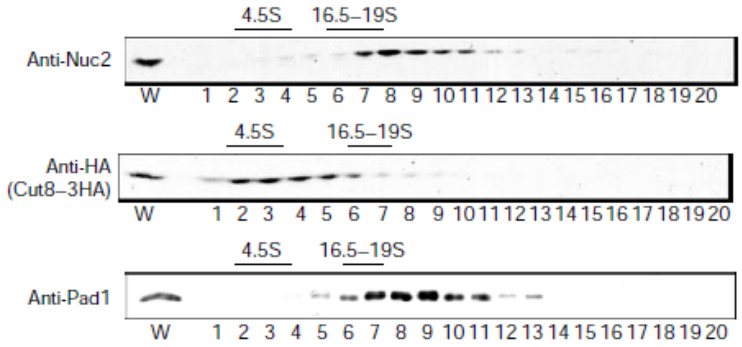

Fig. 1 Fractions from sucrose gradient centrifugation of wild type *S. pombe* cells containing integrated Cut8-3HA were immunoblotted using antibodies Nuc2, Pad1 and HA (ref.2).

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.