



---

**anti-Sds22 (*S. pombe*) antibody, rabbit serum**

63-141 100 µl

*Schizosaccharomyces pombe* **Sds22** protein contains leucine-rich repeats and physically interacts with the catalytic subunits of two type 1 protein phosphatases (Dis2 and Sds21). **Sds22** is a regulatory subunit of these phosphatases and the **Sds22**-bound phosphatases carry a key phosphatase activity essential for the progression from metaphase to anaphase. **Sds22** is essential for cell viability and in its absence, cells were blocked in metaphase. **Sds22** protein is predicted to form a repeating helical rod that is capable of enhancing a PP1-dependent dephosphorylation activity.

**Applications:**

1. Immunoblotting (dilution: 1/200~1/500)
2. Immunoprecipitation
3. Immunofluorescence microscopy

**Immunogen:** Recombinant C-terminal region (1.8kb) of *S. pombe* Sds22 (1)

**Specificity:** Specific to *S. pombe*

**Form:** Rabbit antiserum added with 0.05 % sodium azide

**Storage:** Shipped at 4 °C and stored at -20°C

**Data Link:** Swiss-Prot [P22194](#)

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

1. Ohkura H and Yanagida M "S.pombe gene sds22+ essential for a midmitotic transition encodes a leucine-rich repeat protein that positively modulates protein phosphatase-1." *Cell* **64**: 149-157 (1991) PMID: [1846086](#)
2. Stone EM *et al* "Mitotic regulation of protein phosphatases by the fission yeast sds22 protein." *Curr Biol* **3**: 13-26 (1993) PMID: [15335873](#)
3. Ishii K *et al* "Requirement for PP1 phosphatase and 20S cyclosome/APC for the onset of anaphase is lessened by the dosage increase of a novel gene *sds23+*." *EMBO J.* **15**:6629-6640 (1996) PMID: [8978689](#)

to be continued

Fig.1 Immunoblot with anti-Sds22 antiserum of yeast extracts from (1) wild type strain HM123, (2) *sds22::ura4+* deletion mutant carrying pHR140-2 (ref.2).

The 40kD protein band was identified by immunoblot analysis of wild-type strain using anti-Sds22 antisera (lane1). The 40 kD band is enhanced in the *sds22::ura4+* disruption mutant strain that is rescued by the multicopy *sds22+* plasmid pHR140-2 (lane2).

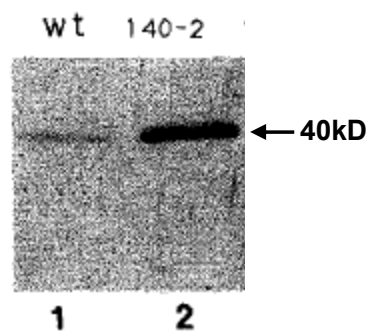


Fig.2 Sds22 coprecipitates with Dis2 and Sds21 (ref.2).

Yeast extracts of wild type (wt) strain HM123 (lane 1 and 2), *dis2::ura4+* deletion mutant ( $\Delta$ d2, lane 3), *sds21::ura4+* deletion mutant ( $\Delta$ s21, lane 4) were immunoprecipitated followed by immunoblotting with the indicated antiserum, to detect the Sds22 or Dis2/Sds21 proteins.

Lane 1 was immunoprecipitated with the appropriate preimmune serum, lane 2-4 with the anti-Sds22 serum.

(a) denotes anti-Sds22 immunoblot; (b) denotes anti-D2C immunoblot. Anti-D2C crossreacts with both Sds21 and Dis2.

Anti-Sds22 antiserum coprecipitates both Dis2 and Sds21 proteins in the wild type strain (lane 2b). Consistently, Sds21 alone is precipitated in the *dis2* deletion mutant (lane 3b), and Dis2 alone is precipitated in the *sds21* deletion mutant (lane 4b).

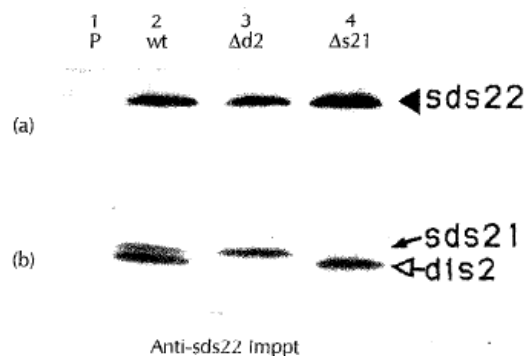
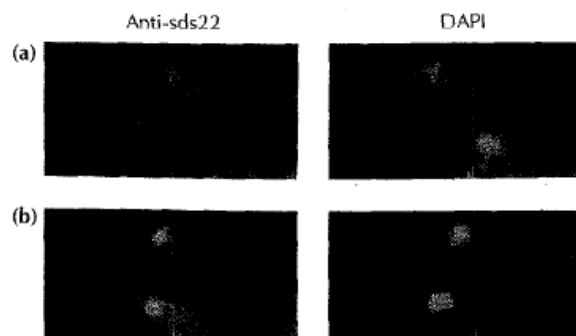


Fig.3 Sds22 subcellular localization



Gentaur Molecular Products  
 Voortstraat 49  
 1910 Kampenhout, BELGIUM  
 Tel 0032 16 58 90 45 | Fax 0032 16 50 90 45  
 www.gentaur-worldwide.com  
 info@gentaur.com