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Rax2 marks the spot

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Haploid yeast cells bud next to the site of the previous division (axial pattern), but diploid yeast cells bud from their poles (bipolar pattern). In the 8 December Science, Chen *et al.* propose that the Rax2 protein marks the cortex to provide a landmark for bipolar budding (*Science* 2000, **290**:1975-1978). Rax2 is an integral membrane protein, discovered following a hunt for mutants defective in bipolar budding. Late in the cell cycle, Rax2 protein localizes to rings associated with division sites. These rings persist long after production of the protein has ceased. Induction and repression experiments show that the marks are stable, and that existing, localized protein does not shift to new poles or division sites. Rax2 therefore represents a form of long-lasting, epigenetic inheritance. Its discovery suggests that heritable protein marks at the cell cortex may contribute to the development of tissue architecture in higher eukaryotes.

References

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- 2. Science, [http://www.sciencemag.org/]