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All about *abo*

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Mutation of the *Drosphila* abnormal oocyte (abo) gene causes a recessive maternal-effect lethality, which can be rescued by specific regions of heterochromatin. In the October 9 Proceedings of the National Academy of Sciences, Berloco *et al.* report a characterization of the *abo* protein product and its function (*Proc Natl Acad Sci USA* 2001, **98:**12126-12131). They cloned the *abo* gene and showed that it encodes a chromosomal protein that binds specifically to the regulatory regions within the histone gene cluster (on the 39E region of polytene chromosomes). Similar proteins were found in *Arabidopsis* (the DET1 protein), as well as in mouse and man. Chromatin immunoprecipitation experiments demonstrated that Abo binds to the histone gene promoter regions, and *abo* mutations affected histone expression levels. Deleting the histone cluster rescued the *abo* maternal-effect defects. The authors conclude that Abo is a negative regulator of histone gene expression.

References

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