



Figure 8.1. Regulatory region of the *endo 16* gene in sea urchin. The region is 2300 bp long and contains distinct functional modules (A to G) in addition to the basal promoter (Bp) region. Factors that bind uniquely in a single region of the sequence are marked above the line representing the DNA. Factors below the line interact in multiple regions. Module G is a general booster for the whole system; F, E, and DC are repressor modules that permit ectopic expression. Module B drives expression later in development, and its major activator is responsible for a sharp, gut specific increase in transcription after gastrulation. Module B interacts strongly with module A which controls the expression of *endo 16* during the early stages of development. (B) DNA sequence of modules B, A, and the basal promoter region. Beneath are target site mutations used in perturbation experiments. (Reprinted with permission from Yuh *et al.*, 2001 and Company of Biologists Ltd.)