



Figure 8.13 The process of enzyme induction using a repressor. (a) A repressor protein binds to the operator region and blocks the action of RNA polymerase. (b) An inducer molecule binds to the repressor and inactivates it so that it no longer can bind to the operator. Transcription by RNA polymerase occurs and an mRNA for that operon is formed. In the case of the *lac* operon the repressor would be the *lac* repressor, and the inducer would be allolactose.