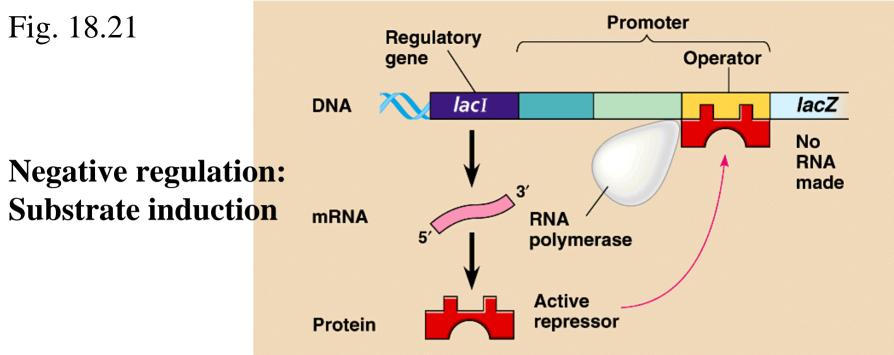
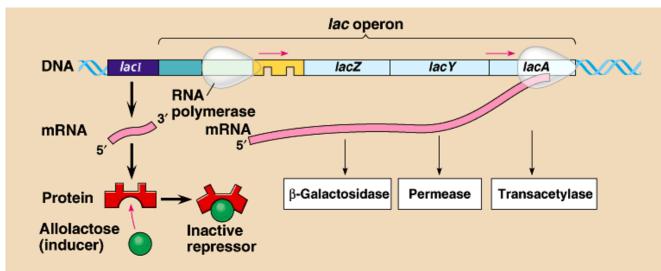
OUTLINE 3

- **III.** Control of Gene Expression in Prokaryotes
 - A. Regulatory proteins
 - **B.** The operon model
 - C. Examples
 - 1. the lac operon (substrate induction)
 - 2. the tryp operon (end product repression)
 - 3. the lac operon (positive control)



(a) Lactose absent, repressor active, operon off

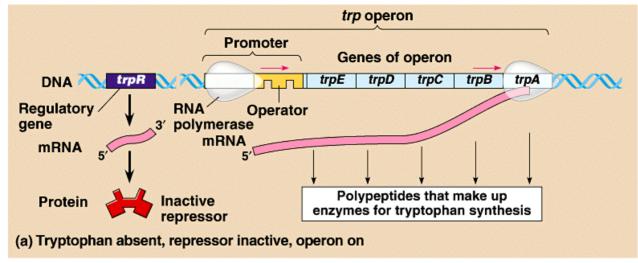
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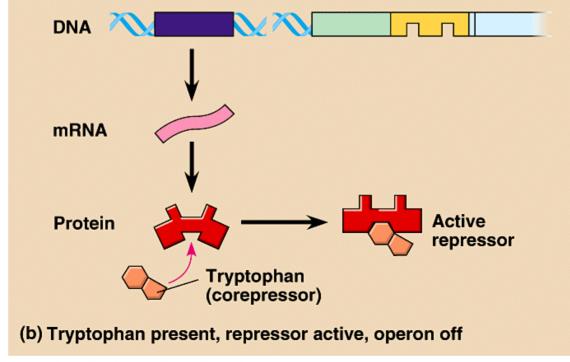
(b) Lactose present, repressor inactive, operon on

Negative regulation: end-product repression

Fig 18.20

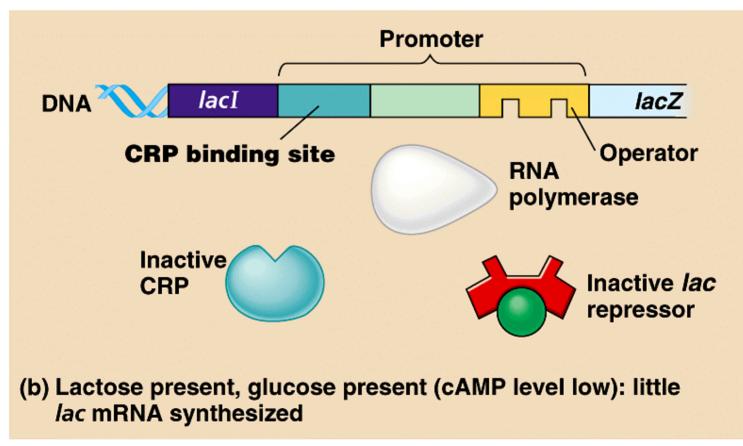


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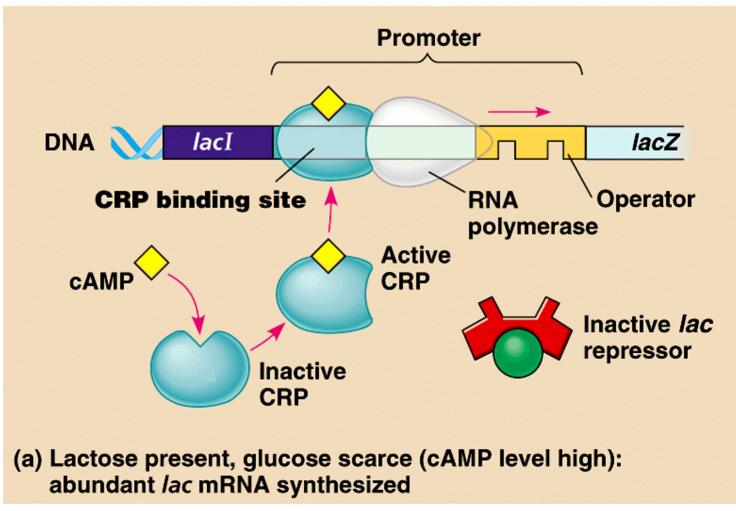
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Fig. 18.22a **Positive regulation of the lac operon**



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Fig. 18.22b Positive regulation of the lac operon



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