

OPERONS: Controlling Gene Expression

• The *trp* Operon – a Repressible Operon

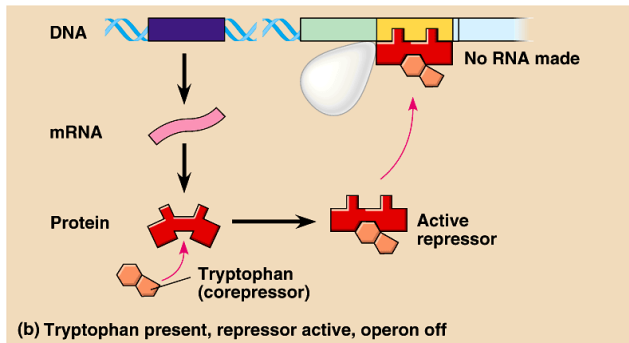
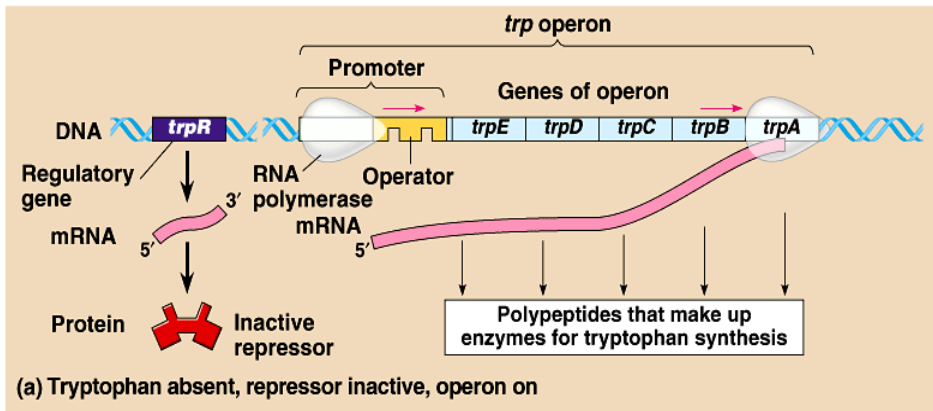
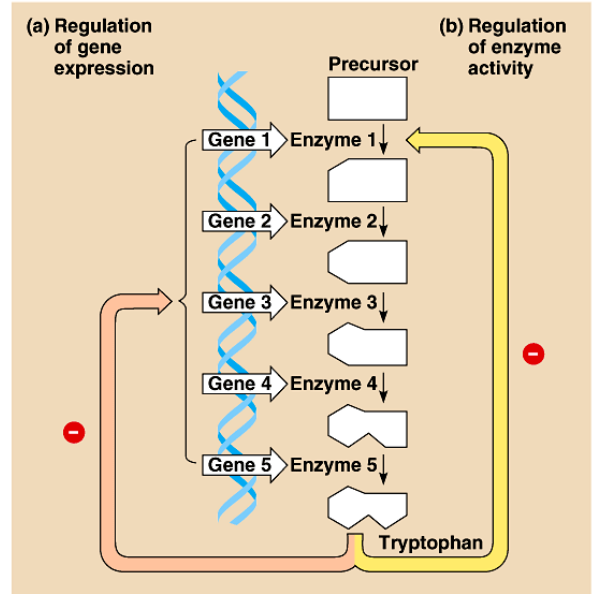
Operon –

Operator –

Regulatory Gene –

Repressor –

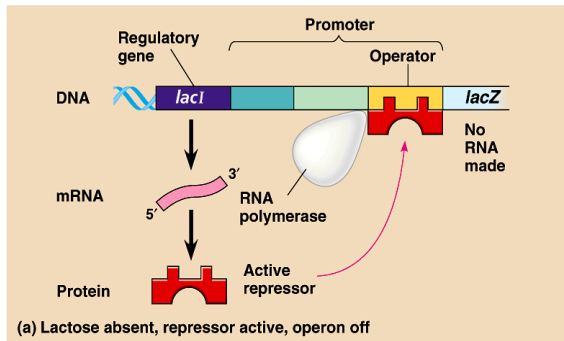
Corepressor –



When is transcription active? When is it inactive?

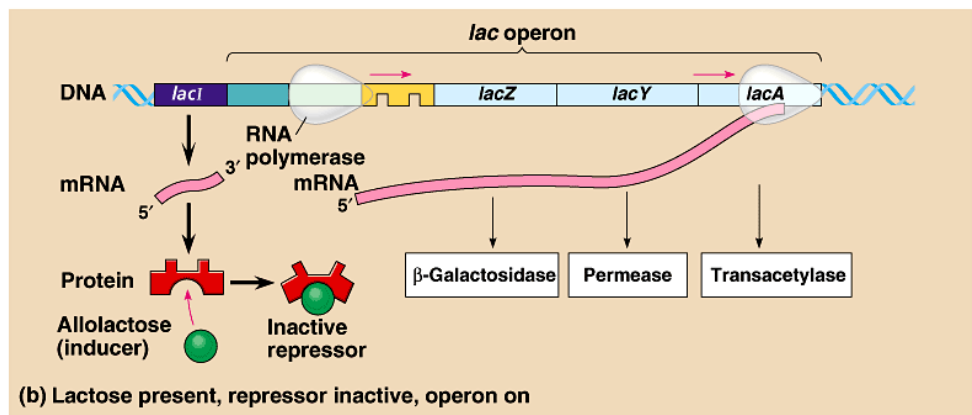
• The *lac* Operon – An Inducible Operon

Inducer -



When is transcription active?

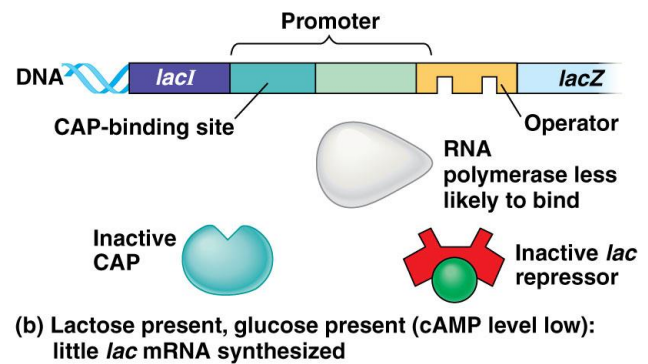
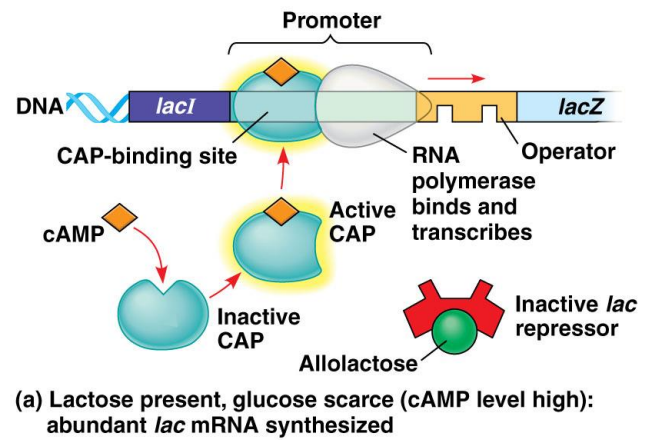
When is it inactive?



Positive Gene Regulation

Cyclic AMP (cAMP) –

Activator –



How does this affect the *lac* Operon?