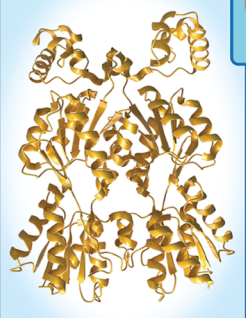


BACTERIUM

LacI⁺
Wild-type

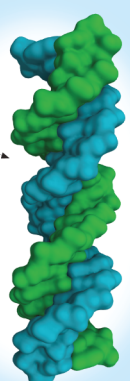


Encodes a repressor protein that binds to LacO to inhibit transcription & translation of the structural genes when lactose is absent. When lactose is present, it binds lactose instead of LacO, allowing transcription of the structural genes.

Gene

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LacO⁺
Wild-type

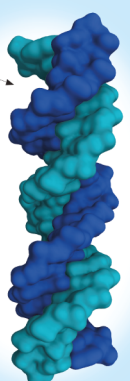


Regulatory operator region. When bound by the repressor, transcription of the structural genes cannot occur.

Gene

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Lacp⁺
Wild-type



Promoter required for binding to RNA polymerase to allow for transcription of the structural genes.

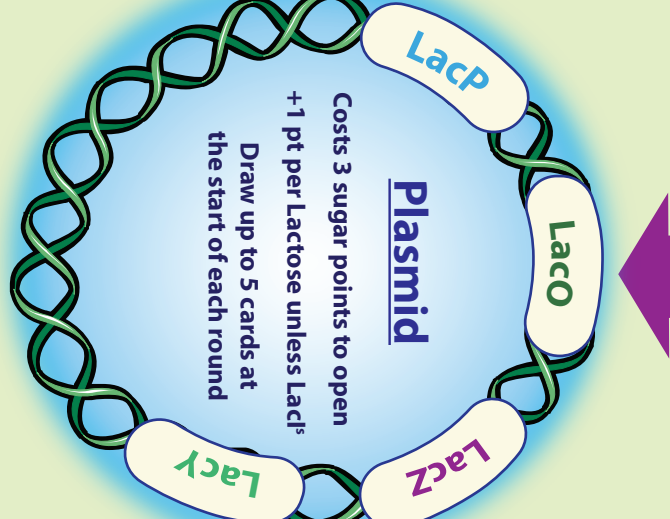
Gene

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Plasmid

Costs 3 sugar points to open
+1 pt per Lactose unless LacI's

Draw up to 5 cards at the start of each round



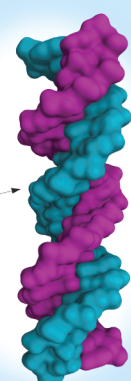
Lacp

LacO

LacZ

LacY

LacZ⁺
Wild-type

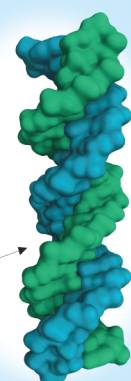


Structural gene that encodes an enzyme that breaks lactose into galactose and glucose.

Gene

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LacY⁺
Wild-type



Structural gene that encodes a transporter protein to import lactose into the bacterium.

Gene

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