



LICENCIATURA EN NUTRICIÓN.

BIOQUIMICA

DIAGRAMAS: GLUCOLISIS Y LA OXIDACION DEL
PIRUVATO, METABOLISMO DEL GLUCOGENO,
GLUCONEOGENECIS Y CONTROL DE LA GLUCOSA EN
SANGRE

Q.F.B:

YENI KAREN CANALES HERNÁNDEZ

ALUMNA:

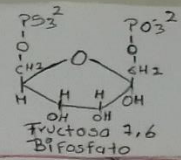
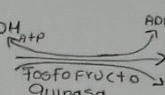
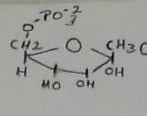
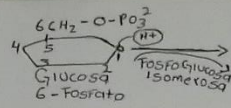
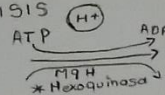
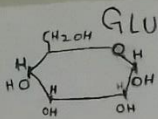
VERONICA VELAZQUEZ ROBLERO

TERCER

CUATRIMESTRE

TAPACHULA CHIAPAS, A 20 DE JUNIO DE 2020

GLUCOLISIS

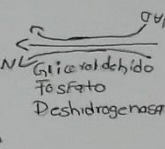
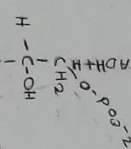
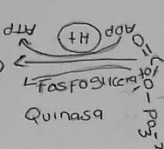
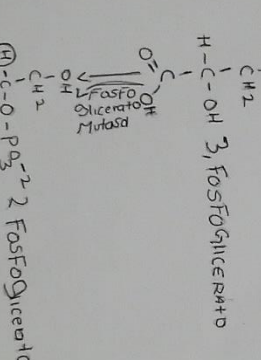
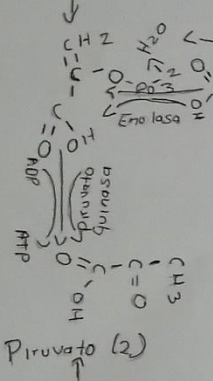


I. ETAPA: Gasto de energía

Glucosa

Fosfofructo 1,6 Aldolasa

Piruvato



GANANCIA ENERGIA

Gluceraldehido 3 Fosfato

Fruktosa 1,6 Bifosfato Aldolasa

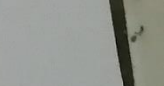
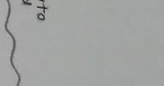
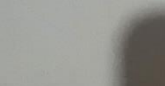
Gluceraldehido 3 Fosfato

Dihidroxicetona Fosfato

Tyosafosfato Isomerasa

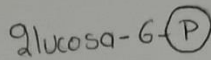
Gluceraldehido 3 Fosfato

Piruvato (2)

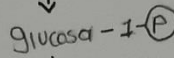


Metabolismo del Glucógeno

Estadio I: Formación de UDP-glucosa



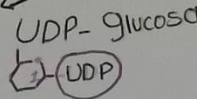
Fosfoglucomutasa



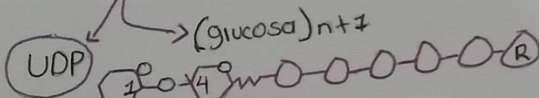
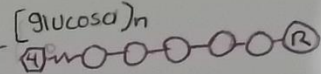
UTP → UDP-glucosa + Pirofosforilasa + Mg²⁺

Pirofosfatasa
H₂O → P_i

Estadio II: elongación



Glucógeno Sintasa



↑ enlace α-1,4 glucósido

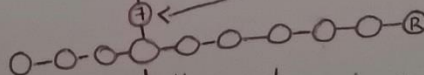
Estadio III: Formación de ramificaciones
enlace α-1,4 roto

↓ la elongación de cadena continúa hasta

1-2-3-4-5-6-7
Transferencia de bloque de unas siete unidades de glucosa.

enzima ramificadora amilo (1,4 → 1,6) transglucosilasa

enlace α-1,6 Formado



↓ ulterior elongación ramificación

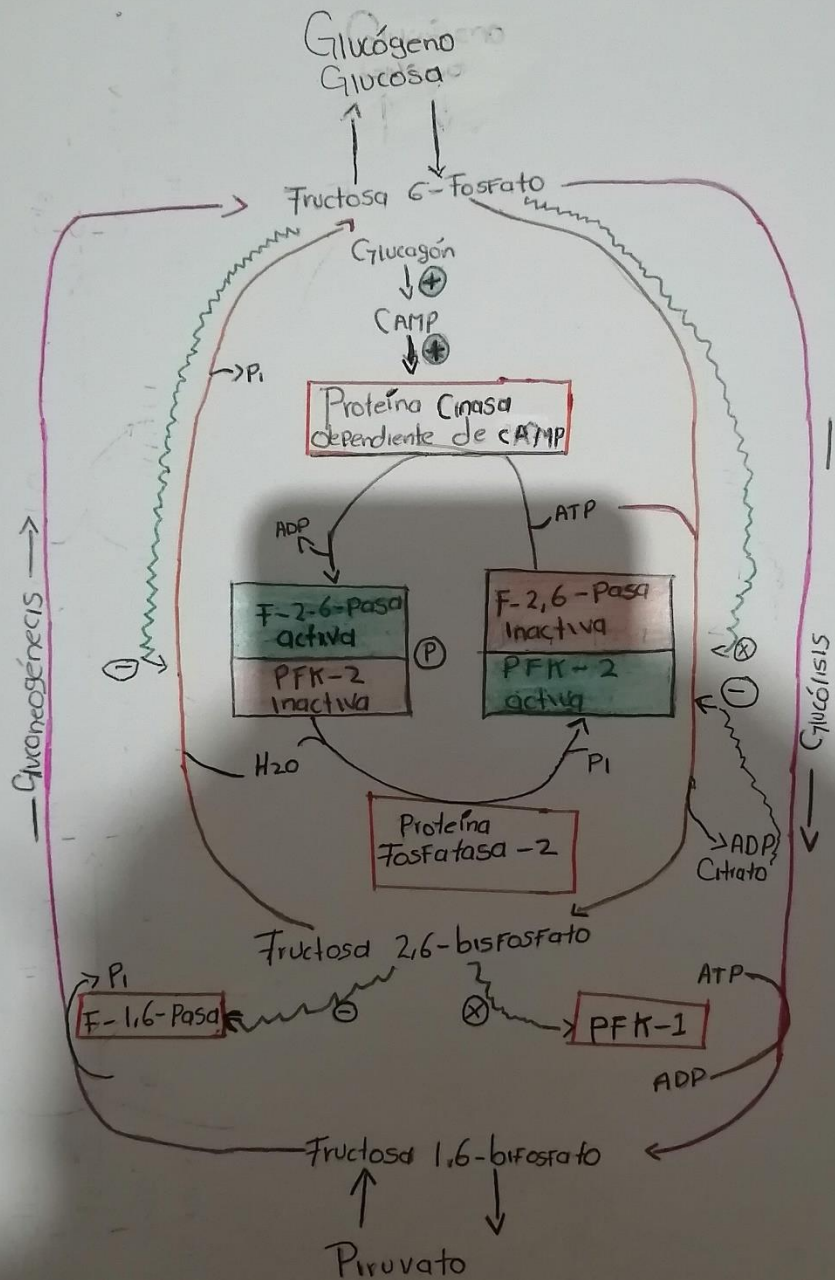
Glucógeno

Clave

○ = Residuos de glucosa

Ⓡ = Resto de molécula de glucógeno o, si no glucógeno, Ⓡ = Glucogenina.

Gluconeogénesis y control de la glucosa en sangre



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