

Biomoleculas 2



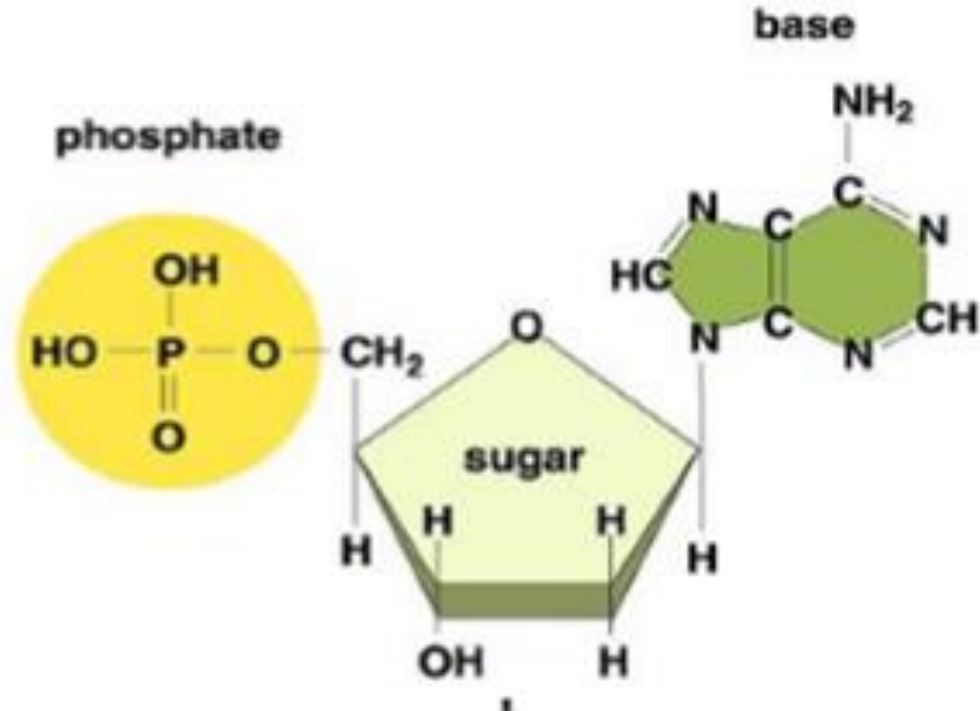
Acidos nucleicos

- Fórmula: CHONP
- 2 tipos de A. nucleico:
 - ADN
 - ARN

Nucleótido

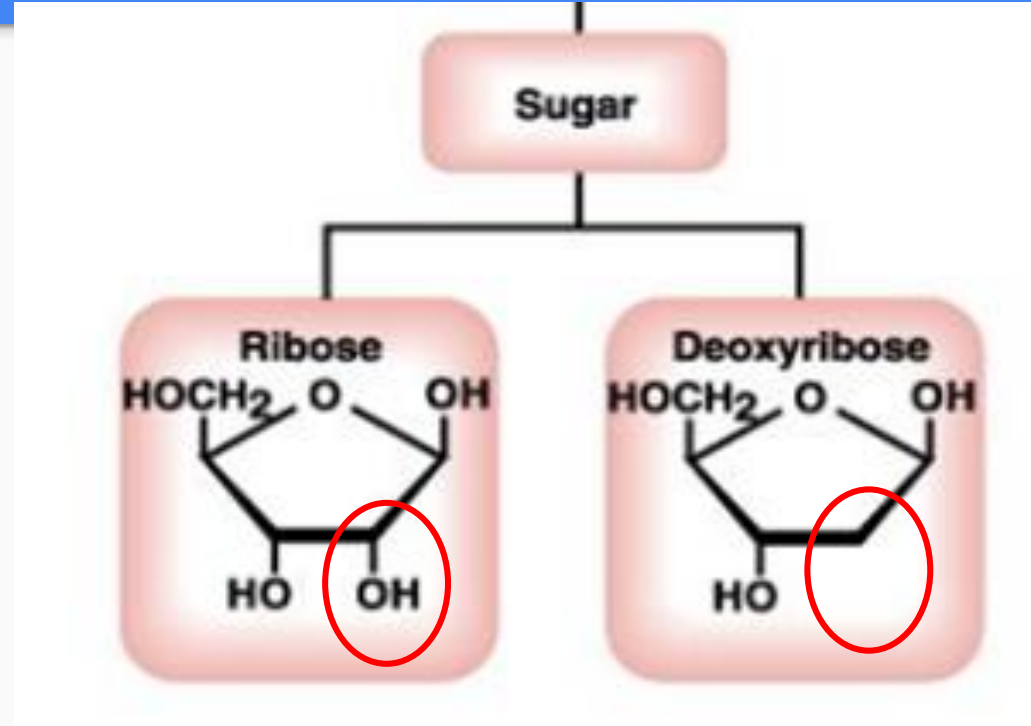
Monómero de los ácidos

- formados por:
 - Grupo fosfato
 - Pentosa
 - Base nitrogenada

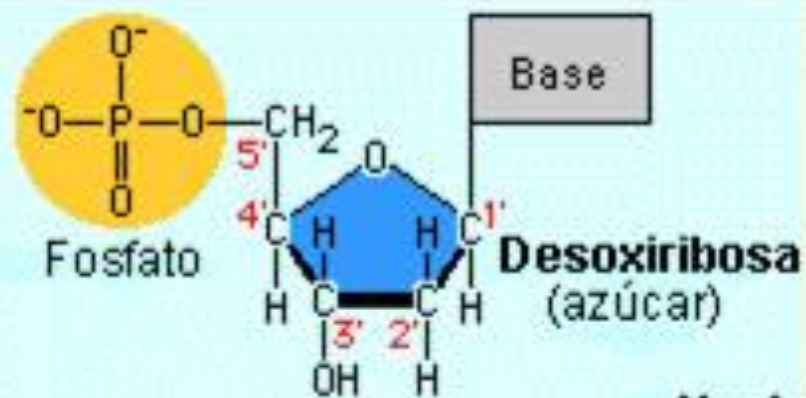


Pentosa

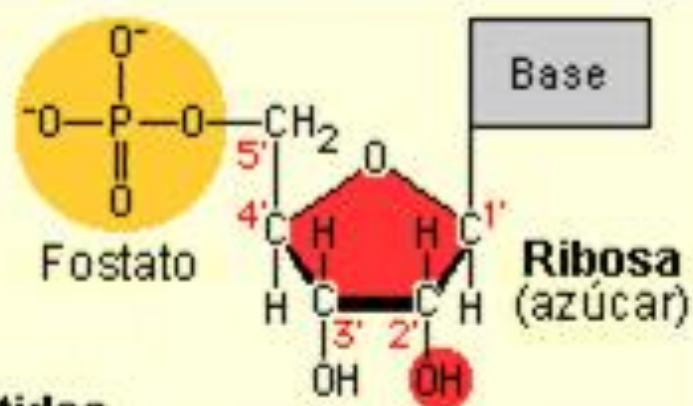
La diferencia es ubicación de OH



ADN

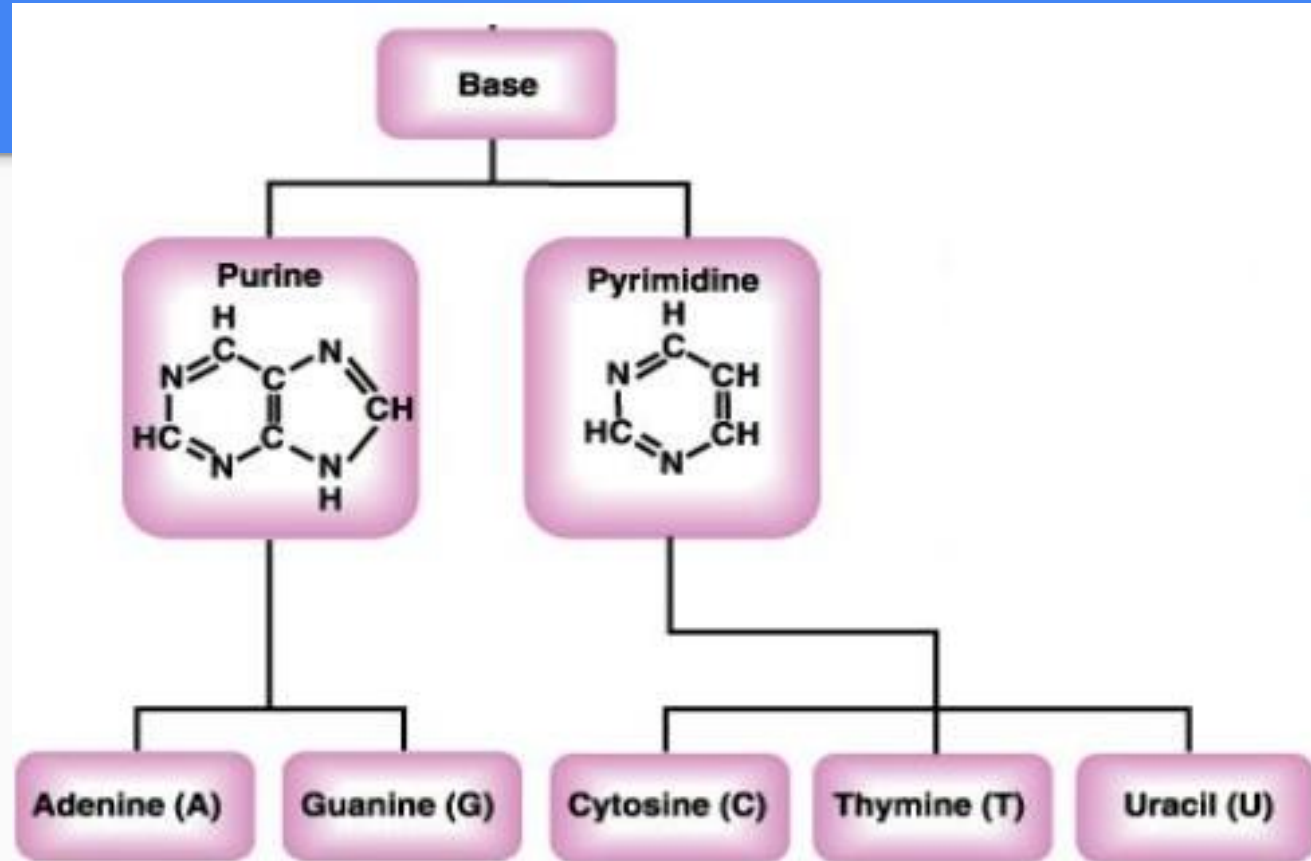


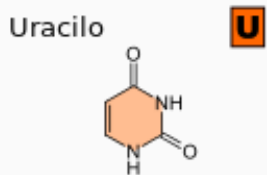
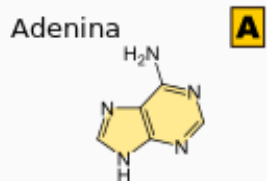
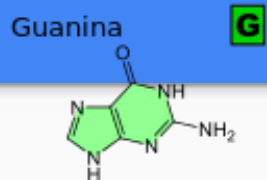
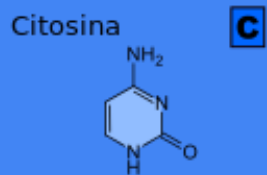
ARN



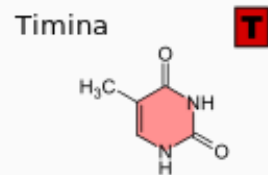
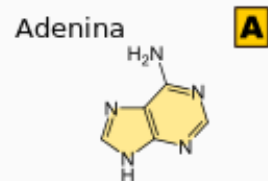
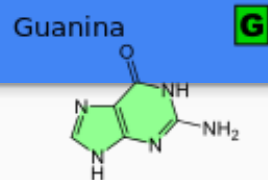
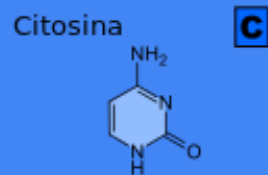
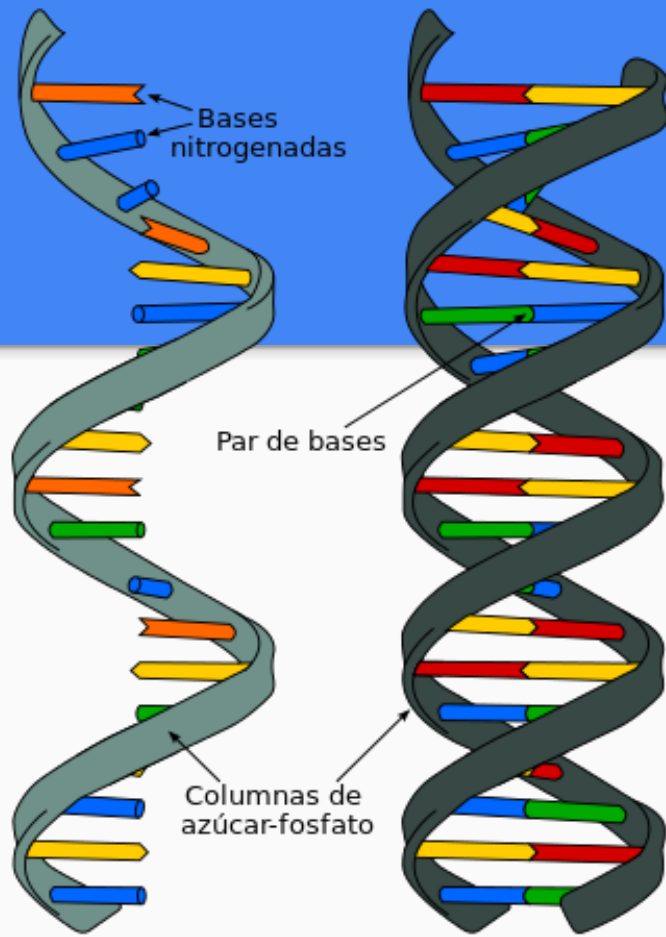
Nucleótidos

Bases Nitrogenadas





Bases del ARN



Bases del ADN

ARN

Ácido ribonucleico

ADN

Ácido desoxirribonucleico

Enlaces en el DNA

Puentes de Hidrógeno

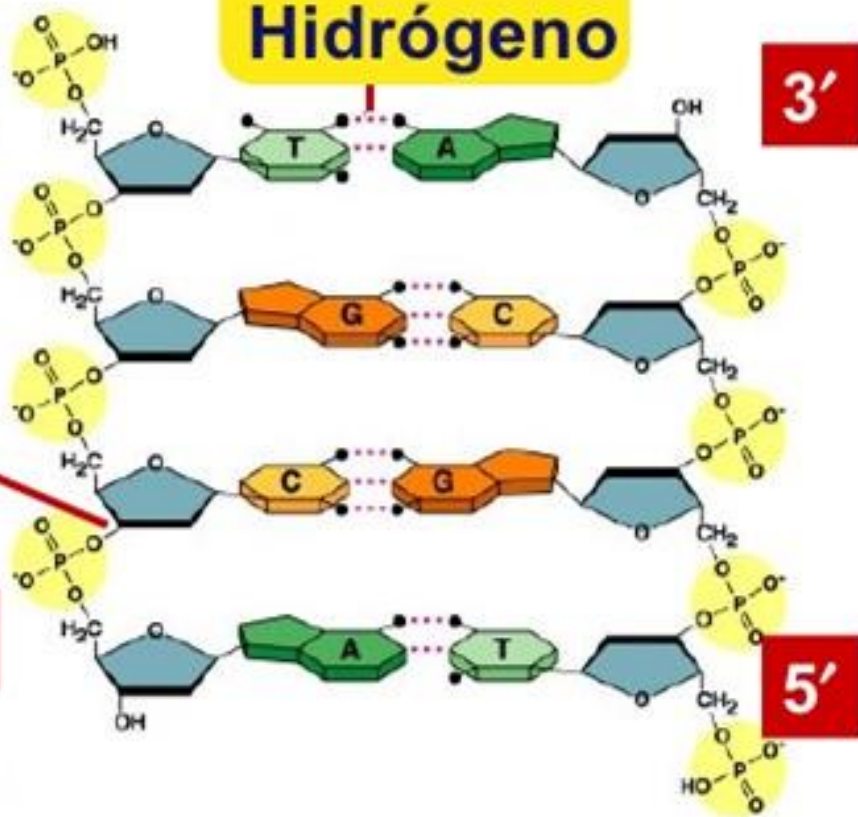
5'

3'

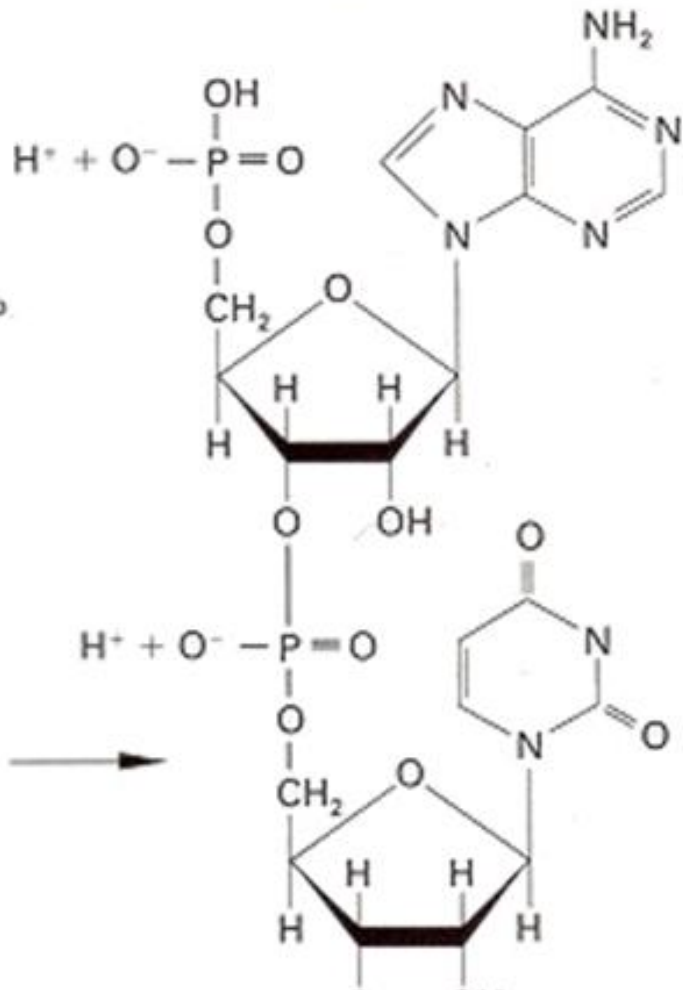
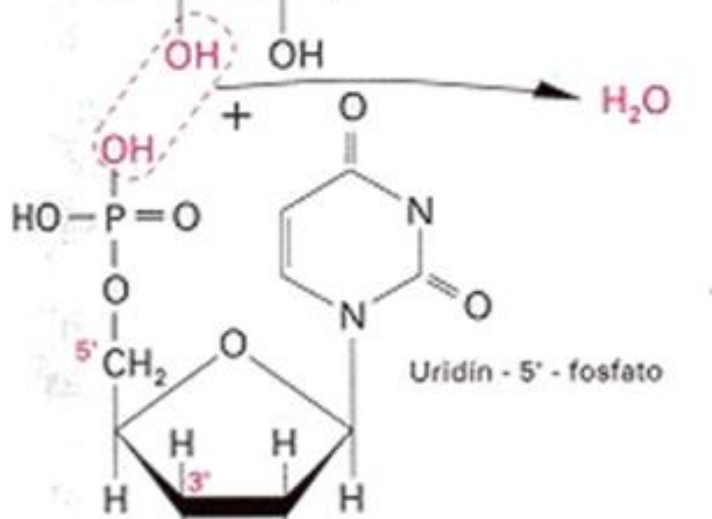
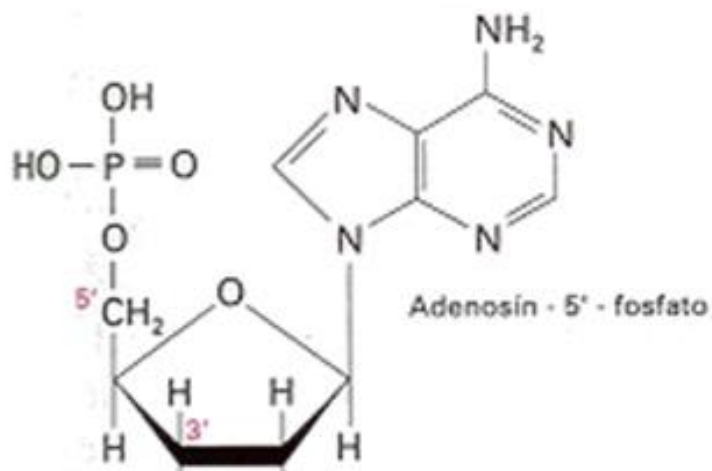
Enlace covalente
Fosfodiéster

3'

5'

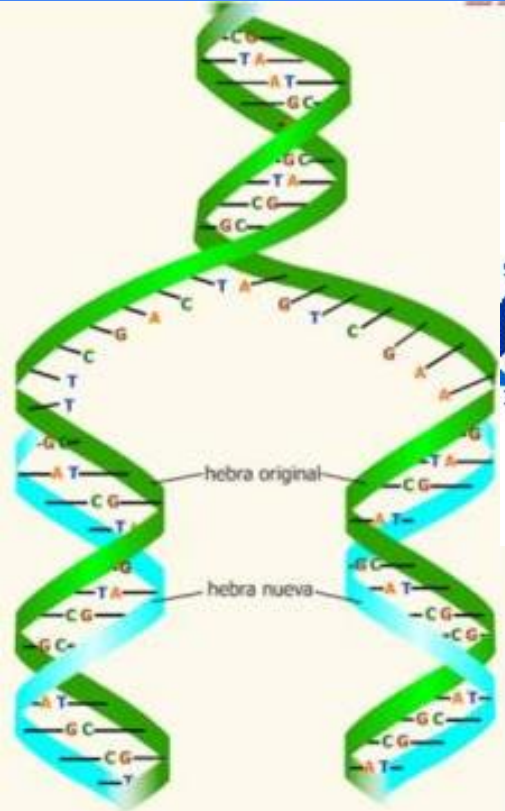


Enlace Fosfodiester

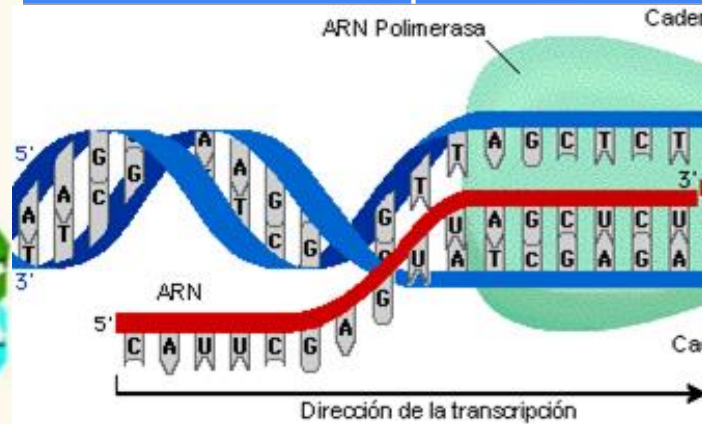


ADN-ARN:

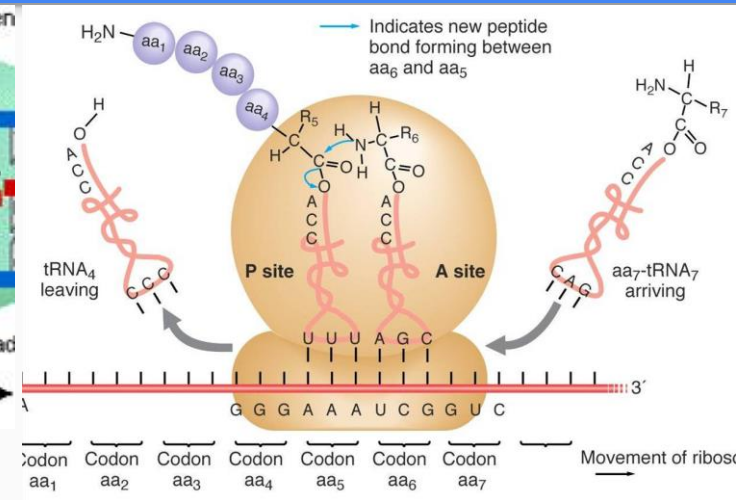
Replicación



Transcripción



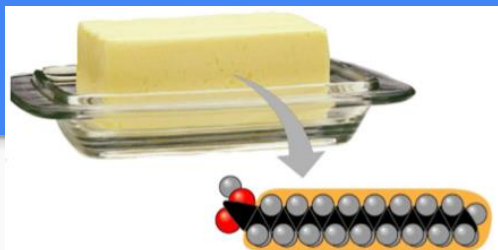
Traducción



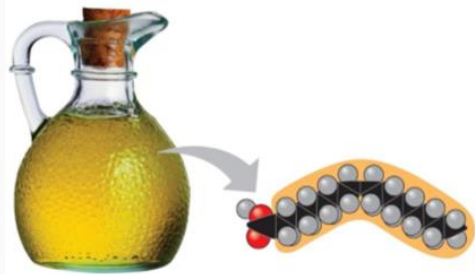
Lípidos

- Fórmula: CHO
- insoluble al agua y a la vez soluble en disolvente orgánico
- Funciones:
 - Formar parte de las membranas celulares (fosfolípidos).
 - Constituir las vitaminas liposolubles (A, D, E, K).
 - Regular la actividad de las células y tejidos (hormonas).
 - Constituir las principales formas de almacenamiento de energía en los seres vivos (triglicéridos)
- Tipos:

Ácido graso

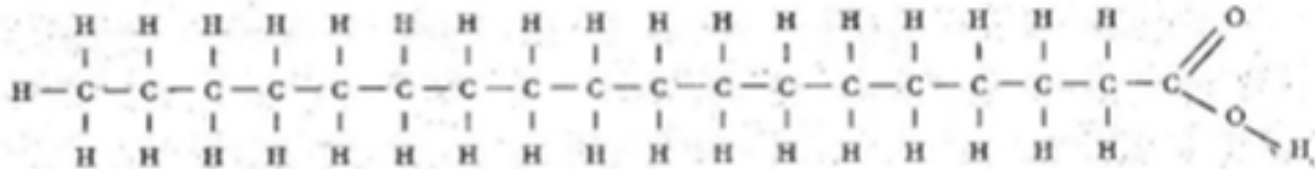


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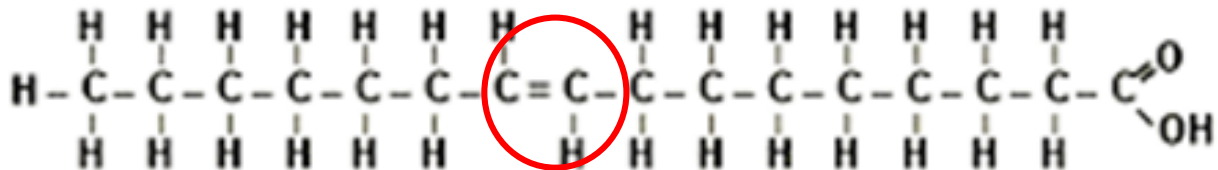


Problemas de empaquetamiento

Menor punto de fusión



SATURADOS

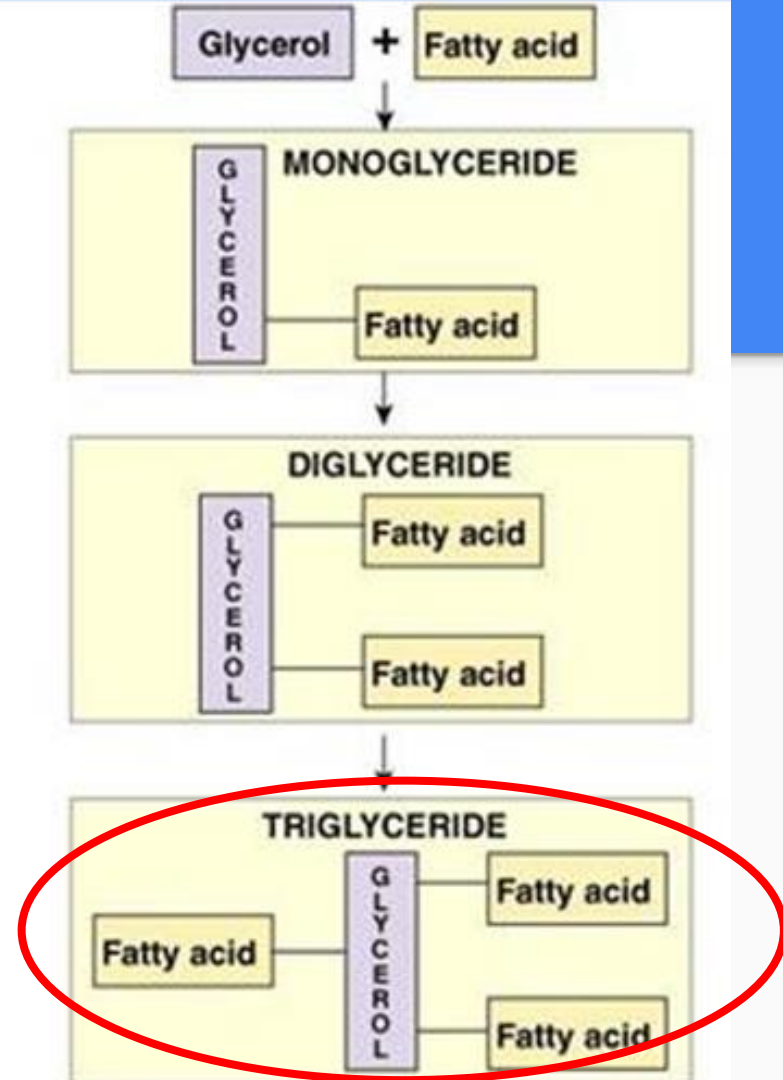


INSATURADOS

Gliceroles

Glicerol → Alcohol

Acido grasos → saturados o insaturados



Triglicéridos

Funciones:

- Reserva energética
- Aislante térmico
- Amortiguador



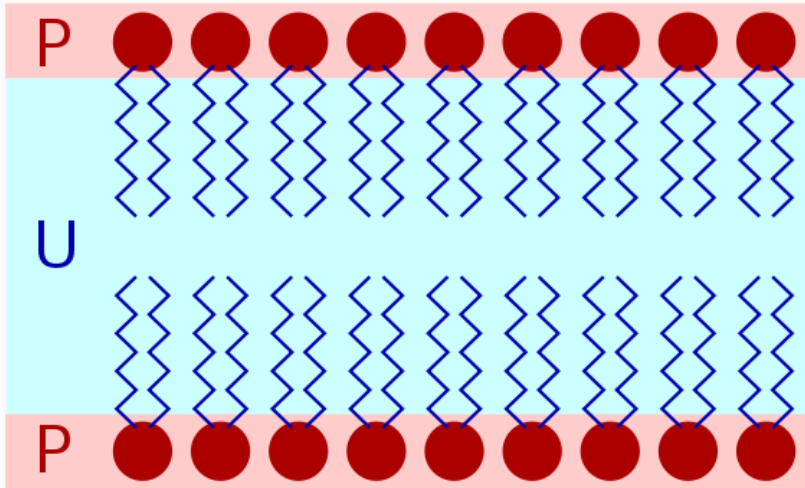
- Líquido a temperatura ambiente
- Insaturados
- cadenas cortas
- Origen Vegetal



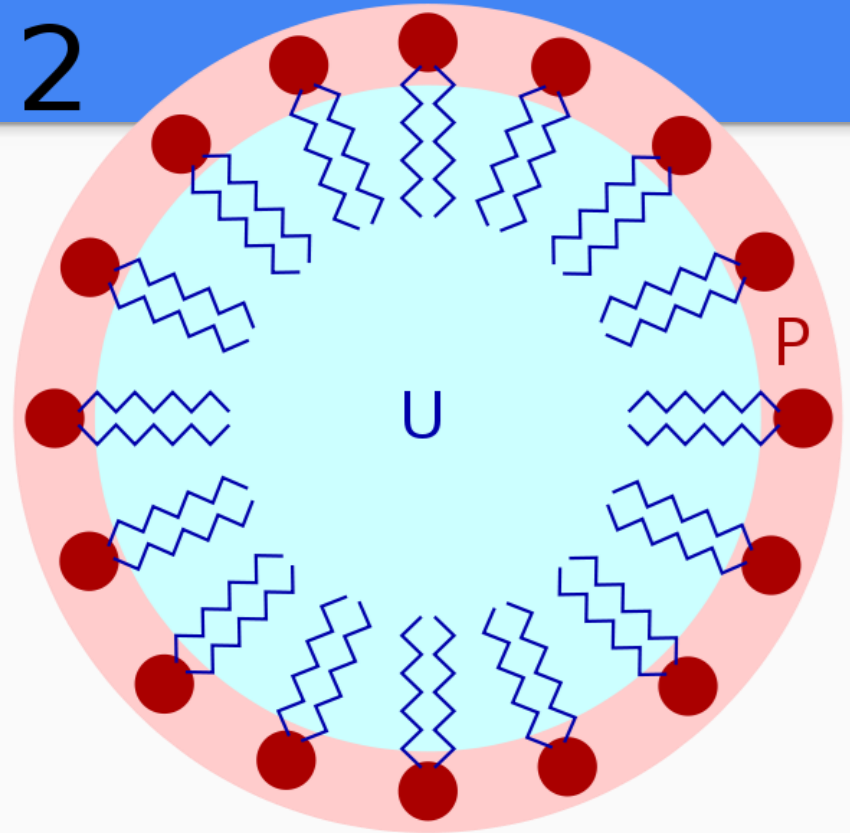
- Sólido a temperatura ambiente
- saturados
- cadenas largas
- Origen Animal

Organización de fosfolípidos

1



2



Esteroides →

Diferente estructura

Insoluble en agua

