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Name this hangout...

Group chat

the cell. delta G prime happens under STANDARD conditions

**Kaitlin Hoyt** 5:26 PM  
ohhhhhhhhhh  
oops

**Gehret VACTutor** 5:26 PM  
The cell RARELY has standard conditions.

**Kaitlin Hoyt** 5:26 PM  
gotcha

**Gehret VACTutor** 5:29 PM  
Understand?

**Kaitlin Hoyt** 5:29 PM  
not understanding the last one  
the E

**Gehret VACTutor** 5:31 PM  
Favorable reaction under standard conditions!

**Kaitlin Hoyt** 5:32 PM  
then delta g will equal delta g prime + RT ln Q  
right?

**Gehret VACTutor** 5:32 PM  
You're a little ahead of me. Just focus on calculating the standard free energy change first.

**Kaitlin Hoyt** 5:34 PM  
so the negative means that it is a favorable, spontaneous reaction?

**Gehret VACTutor** 5:35 PM  
Yes, spontaneous under standard conditions. Determine for me if the new conditions will lead to a spontaneous reaction or not.

Kaitlin Hoyt has entered text

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A  $\longrightarrow$  B  
0.3M                      2M

$\Delta G = \Delta G^{\circ} + RT \ln Q$

$\Delta G^{\circ} = -RT \ln K_{eq}$   
 $\Delta G^{\circ} = -\left(\frac{8315 \text{ J}}{\text{mol K}}\right)(298 \text{ K}) \ln 20$   
 $\Delta G^{\circ} = -74 \text{ kJ/mol}$



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Microphone Capability

Controlled Individually

$$A \longrightarrow B$$
$$C \quad 0.3M \quad \quad \quad 2M$$
$$E$$
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Chat Feature  
can be used  
to clarify some  
complex  
terminology

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fits the bill? Fructose  
So, glucose-6-phosphate is changed to FRUCTOSE-6-phosphate  
Now, fructose-6-phosphate is the substrate for commitment step #3.

**Kaitlin Hoyt** 5:46 PM  
then it uses a kinase?

**Gehret VACTutor** 5:46 PM  
Right, we know that eventually we're splitting glucose into 2-3 carbon molecules. We want each of those to have a phosphate group.

**Kaitlin Hoyt** 5:46 PM  
okay  
so it splits it apart, then adds a phosphate to the one that's missing one?

**Gehret VACTutor** 5:48 PM  
So PFK1 (step 3 enzyme, a kinase) adds a phosphate to the other end of fructose-6-phosphate making it fructose-1,6-bisphosphate.  
Then, fructose-1,6-bisphosphate is catalyzed by Enolase (step 4) and broken in half.  
ALDOLASE

**Kaitlin Hoyt** 5:48 PM  
aldolase?

**Gehret VACTutor** 5:48 PM  
That was today's lecture.

**Kaitlin Hoyt** 5:48 PM  
yes  
Kaitlin Hoyt is typing...

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