Krebs cycle

I. Notes
  A. Sir Hans Krebs
  B. Functions
    1. amphibolic

II. Reactions
  A. Step ①
    1. Rxn
    2. Enzyme
    3. $\Delta G^{\circ\prime}$ = -7.5 kcal/mol
  B. Step ②
    1. Rxn
    2. Enzyme
      a. rxn 2a
        1) $\Delta G^{\circ\prime}$ = +2 kcal/mol
      b. rxn 2b
        1) $\Delta G^{\circ\prime}$ = -0.5 kcal/mol
  C. Step ③
    1. Rxn
    2. Enzyme
    3. $\Delta G^{\circ\prime}$ = -2.0 kcal/mol
  D. Step ④
    1. Rxn
    2. Enzyme
    3. $\Delta G^{\circ\prime}$ = -7.2 kcal/mol
  E. Step - ⑤
    1. Rxn
      a. substrate-level phosphorylation
    2. Enzyme
      a. $(\alpha_2\beta_2)$ - quaternary structure
    3. $\Delta G^{\circ\prime}$ = -0.8 kcal/mol
    4. Notes:
      a. nucleoside diphosphokinase
  F. Step ⑥
    1. Rxn
    2. Enzyme
    3. $\Delta G^{\circ\prime}$ = 0
  G. Step ⑦
    1. Rxn
    2. Enzyme
    3. $\Delta G^{\circ\prime}$ = -0.9 kcal/mol
  H. Step ⑧
    1. Rxn
    2. Enzyme
    3. $\Delta G^{\circ\prime}$ = +7.1 kcal/mol

III. Overview / Review
   A. Equation
   B. Enter & Exits
   C. Energy Totals
      1. TCA cycle
      2. Hub rxn
      3. Glycolysis
      4. Totals