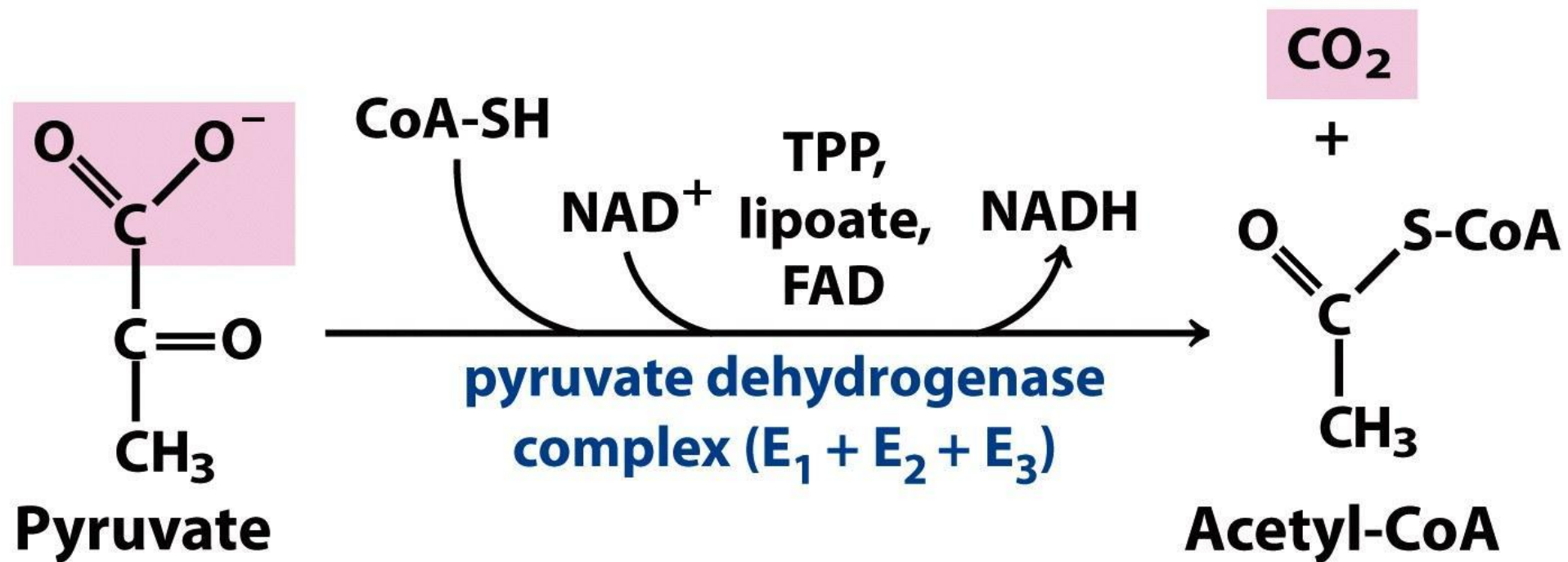


PDH Complex

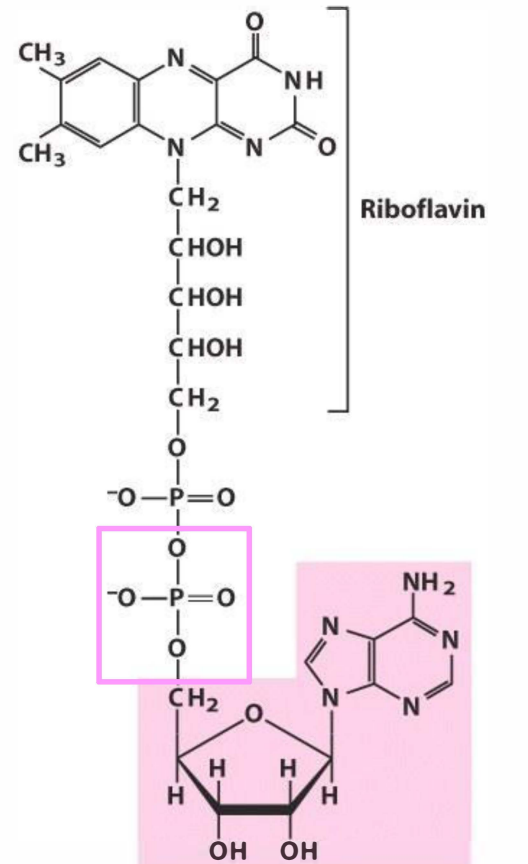
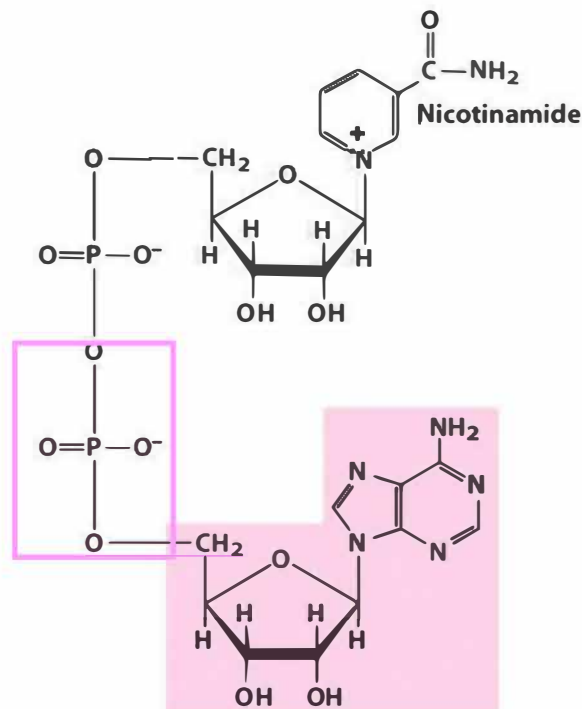
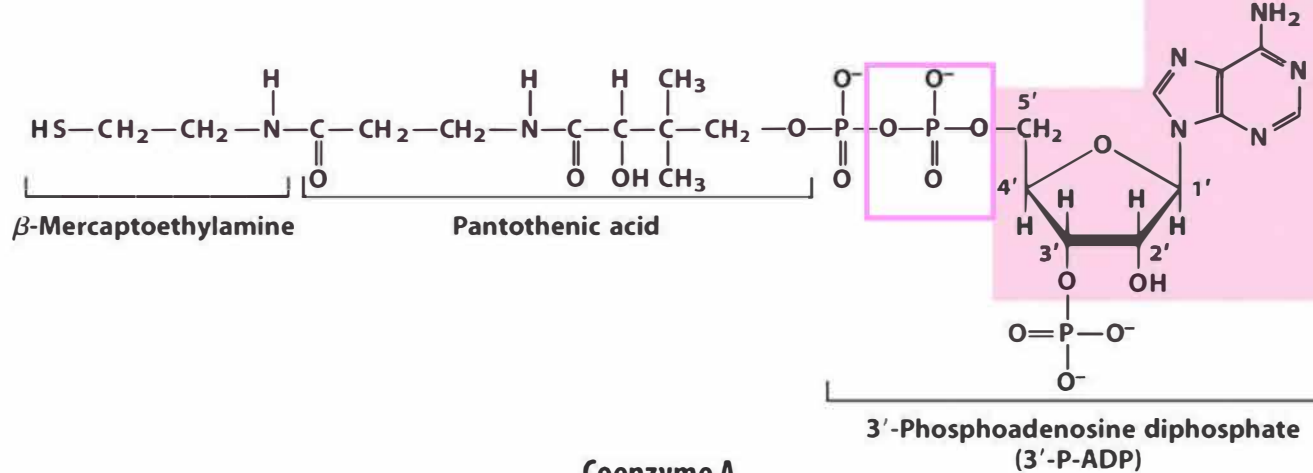
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B. Westermann, EMBO Reports 3, 527 (2002)

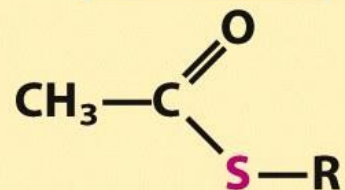


$$\Delta G'^{\circ} = -33.4 \text{ kJ/mol}$$

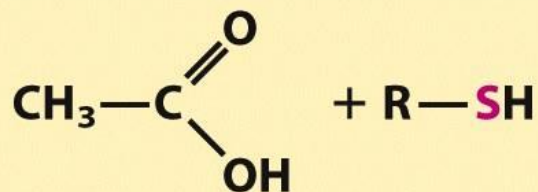


Free energy, G

Thioester

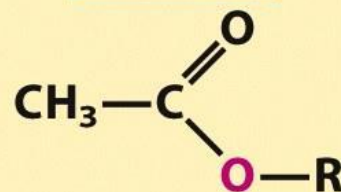


ΔG for
thioester
hydrolysis

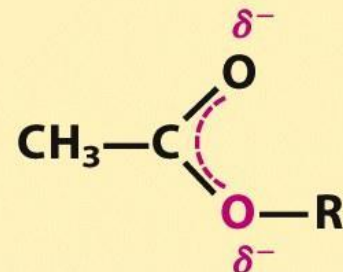


Extra stabilization of
oxygen ester by resonance

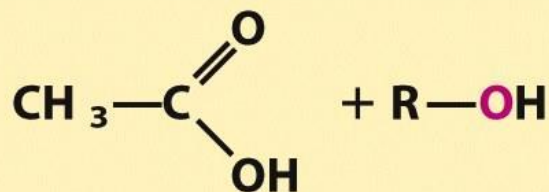
Oxygen
ester

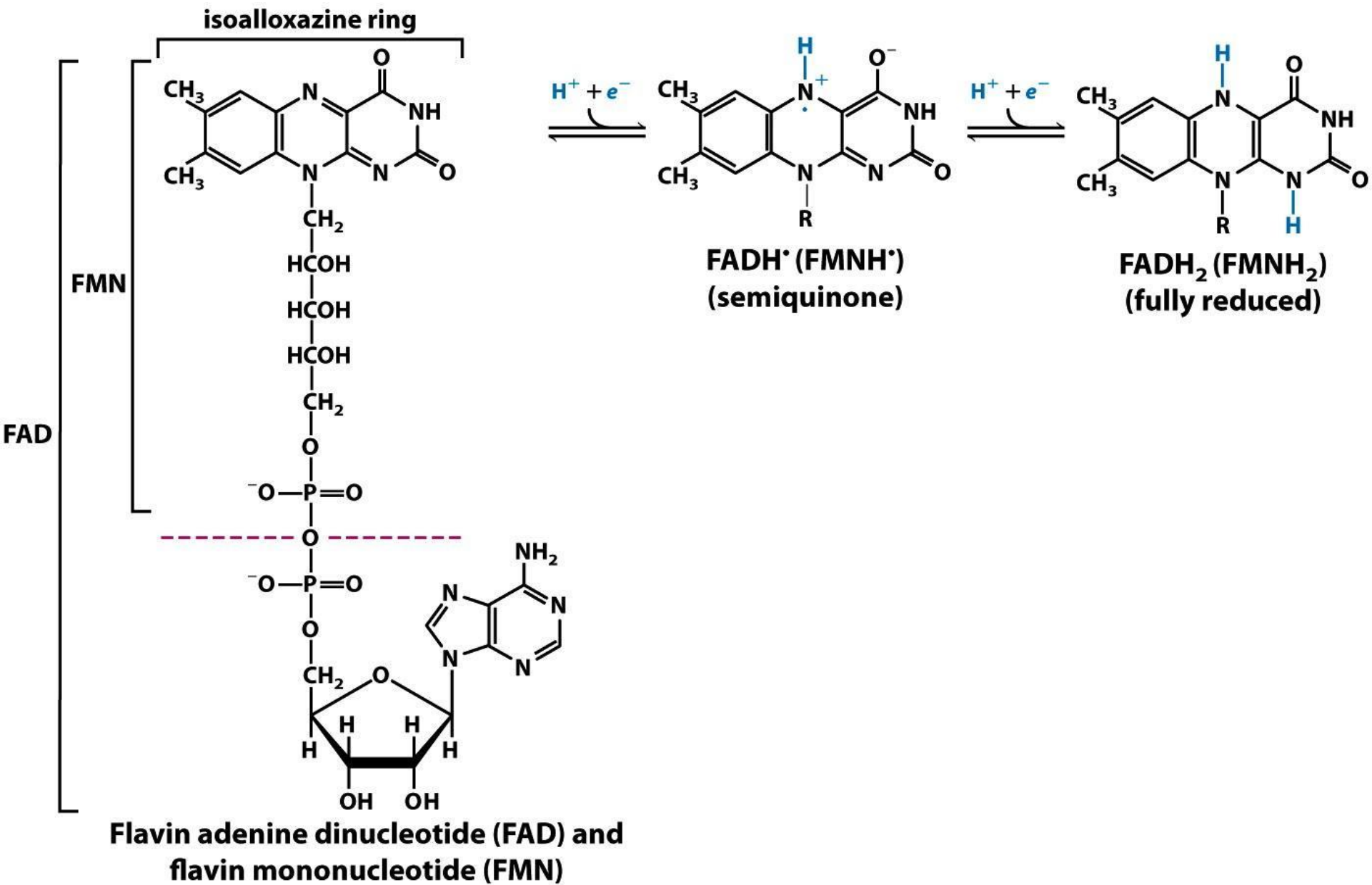


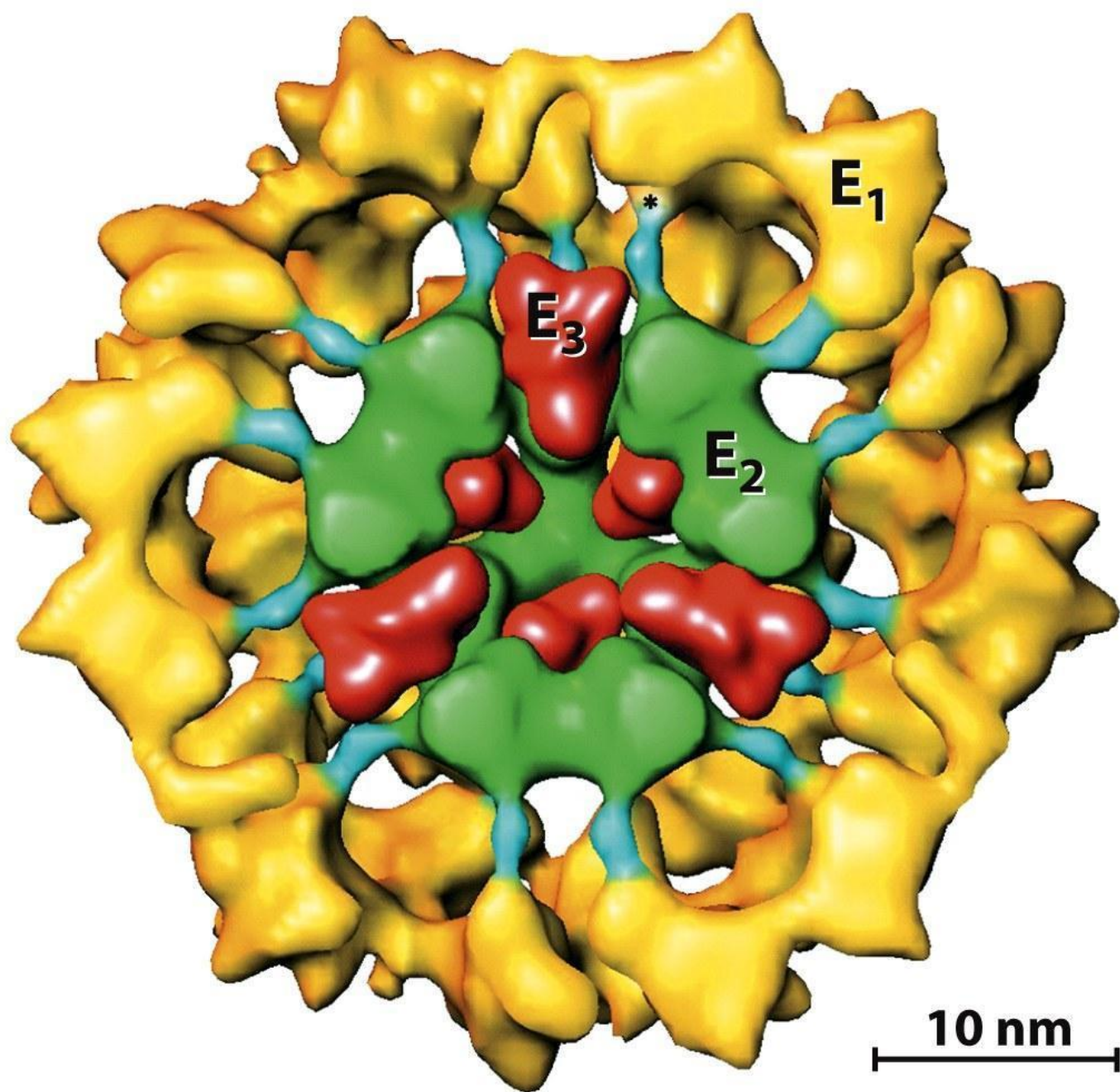
resonance
stabilization

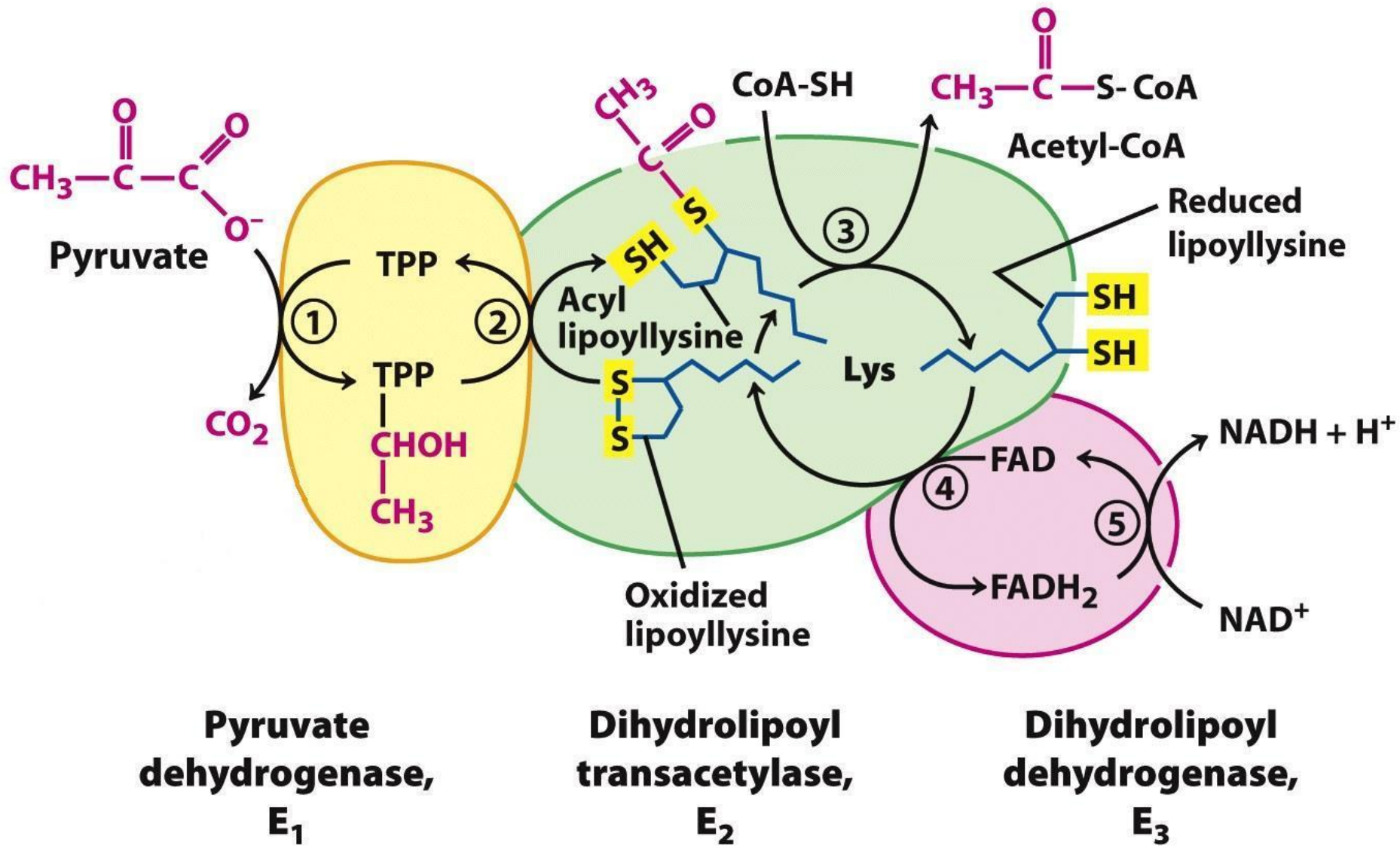


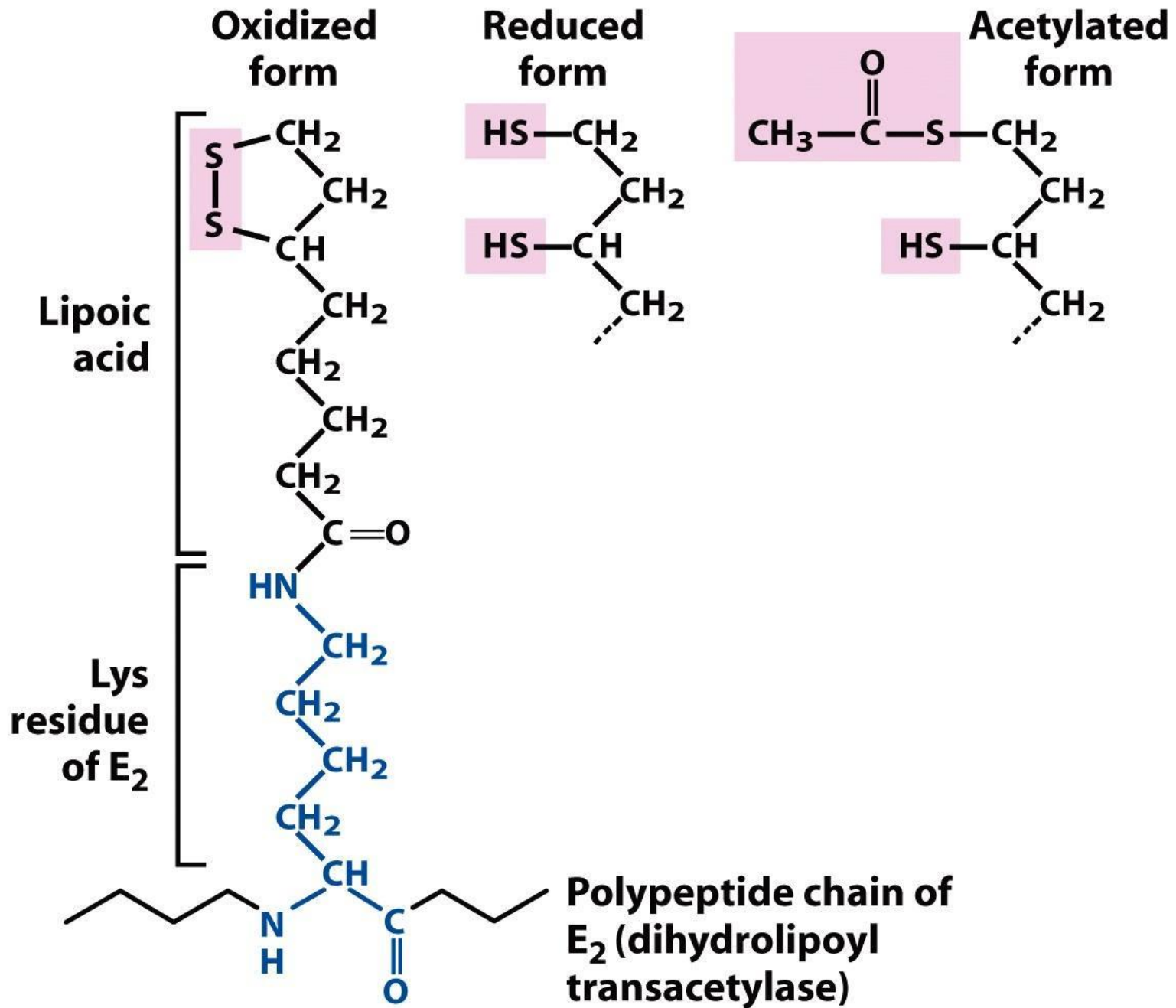
ΔG for oxygen
ester hydrolysis











Number of lipoyl domains varies by species.

E. coli

(3)

Mammals

(2)

Yeast

(1)

Flexible polypeptide linker

C

**Binding domain
(involved in E_2 - E_1
and E_2 - E_3
binding)**

Lipoyl domain

**Acyltransferase domain
(inner core)**

