

TABLE 19-2 Standard Reduction Potentials of Respiratory Chain and Related Electron Carriers

<i>Redox reaction (half-reaction)</i>	<i>E'° (V)</i>
$2\text{H}^+ + 2\text{e}^- \longrightarrow \text{H}_2$	-0.414
$\text{NAD}^+ + \text{H}^+ + 2\text{e}^- \longrightarrow \text{NADH}$	-0.320
$\text{NADP}^+ + \text{H}^+ + 2\text{e}^- \longrightarrow \text{NADPH}$	-0.324
$\text{NADH dehydrogenase (FMN)} + 2\text{H}^+ + 2\text{e}^- \longrightarrow \text{NADH dehydrogenase (FMNH}_2\text{)}$	-0.30
$\text{Ubiquinone} + 2\text{H}^+ + 2\text{e}^- \longrightarrow \text{ubiquinol}$	0.045
$\text{Cytochrome } b \text{ (Fe}^{3+}\text{)} + \text{e}^- \longrightarrow \text{cytochrome } b \text{ (Fe}^{2+}\text{)}$	0.077
$\text{Cytochrome } c_1 \text{ (Fe}^{3+}\text{)} + \text{e}^- \longrightarrow \text{cytochrome } c_1 \text{ (Fe}^{2+}\text{)}$	0.22
$\text{Cytochrome } c \text{ (Fe}^{3+}\text{)} + \text{e}^- \longrightarrow \text{cytochrome } c \text{ (Fe}^{2+}\text{)}$	0.254
$\text{Cytochrome } a \text{ (Fe}^{3+}\text{)} + \text{e}^- \longrightarrow \text{cytochrome } a \text{ (Fe}^{2+}\text{)}$	0.29
$\text{Cytochrome } a_3 \text{ (Fe}^{3+}\text{)} + \text{e}^- \longrightarrow \text{cytochrome } a_3 \text{ (Fe}^{2+}\text{)}$	0.35
$\frac{1}{2}\text{O}_2 + 2\text{H}^+ + 2\text{e}^- \longrightarrow \text{H}_2\text{O}$	0.8166