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The Aerobic Respiratory Chain-Linked NADH Oxidase System of *Bacillus cereus* KCTC 3674

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Abstract Inverted membrane vesicles prepared from *Bacillus cereus* KCTC 3674 oxidized exclusively NADH whereas deamino-NADH was little oxidized as a substrate. The maximum activity of membrane-bound NADH oxidase was obtained at about pH 8.5 in the presence of 0.1 M KCl (or NaCl). Respiratory inhibitor 2-heptyl-4-hydroxyquinoline-N-oxide (HQNO) inhibited the NADH oxidase activity by about 90% at a concentration of 40 μ M. Rotenone and capsaicin, which inhibit the energy-transducing NADH:ubiquinone oxidoreductase, also inhibited the activity by about 60% and 70% at a concentration of 60 μ M and 200 μ M, respectively. Interestingly, NADH:ubiquinone-1, NADH:ferricyanide, NADH:menadione, and NADH:DCIP oxidoreductases of the NADH oxidase system were quite different in the enzymatic properties from each other.