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**Purification and Characterization of Citrate Synthase from
Streptomyces hygroscopicus SF-1293 and Comparison of
Its Properties with Those of 2-Phosphinomethylmalic
Acid Synthase***

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To study the relationship between citrate synthase and 2-phosphinomethylmalic acid (PMM) synthase, which catalyzes a very similar reaction comparable to citrate formation in the biosynthesis of a herbicide, bialaphos, citrate synthase was purified from the mycelium of *Streptomyces hygroscopicus* SF-1293, a bialaphos-producing organism. The overall purification was 440-fold with a yield of 4.4% from cell-free extract. Based on comparison with PMM synthase, it has been concluded that citrate synthase of *S. hygroscopicus* is quite different from PMM synthase in several aspects such as enzymatic properties, amino acid composition, N-terminal amino acid sequence, and stereo-chemical reaction mechanism.

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