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Phosphatase from Proteus mirabilis

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Abstract

Cell-free preparations of Proteus mirabilis contained a phosphatase (EC 3.1.3.1) whose activity surpassed that of alkaline phosphatase from Escherichia coli. Phosphatase was also found in the culture liquid of P. mirabilis. The composition of proteins displaying enzyme activity was assayed by polyacrylamide gel electrophoresis. Enzyme synthesis was studied at various stages of bacterial growth. Biosynthesis of phosphatase in P. mirabilis (similarly to that found in other bacteria) was shown to be induced under conditions of inorganic phosphate deficiency in the medium. © 2001 MAIK "Nauka/Interperiodica".