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Biosynthesis of extracellular guanyl-specific ribonuclease by bacillus circulans

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Abstract

Biosynthesis of extracellular alkaline guanyl-specific RNase by *Bacillus circulans* (RNase Bei) was studied. Synthesis of the enzyme by the culture started in the late exponential phase and was inhibited by inorganic phosphate and glucose, in contrast to the biosynthesis of its structural and functional homologue, RNase Ba (barnase) of *B. amyloliquefaciens*. It is suggested that differences in the regulation of the biosynthesis of RNases Bei and Ba are related to different structures of their gene promoters.

Keywords

Bacillus amyloliquefaciens, *Bacillus circulans*, Biosynthesis, Inorganic phosphate, Repression, Ribonuclease