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盘基网柄菌分化逆转引起mRNA的快速降解及抗菌素对其影响[1)]

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摘要 诺加拉霉素能有效封锁盘其网柄菌转录，放线菌酮和嘌呤霉素对抑制该菌蛋白合成有相近效 力。盘基网柄菌分化发育后期积累的mRNAs，在细胞被分散（分化逆转）时，专一地被快速 降解。诺加拉霉素、放线菌素D和柔红霉素合用稳定某些快速降解的mRNA。放线菌酮稳定所 有mRNAs.嘌呤霉素不能稳定后期mRNAs，且有促进降解作用。表明后期mRNAs的快速降解不需 要新蛋白合成，分化逆转只增加了已有酶的作用。

关键词 盘基网柄菌,mRNA稳定性,RNA合成抑制剂,蛋白合成抑制剂

分类号

Rapid Destroying of mRNAs in Disaggregated Dictyostelium Cells and Effect of Ant ibiotics

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Abstract

Nogalamycin can inhibit RNA synthesis in both aggregated and disaggregated Dicty ostelium discoideum cells.Cycloheximide and puromycin are effective in blocking translation.The late mRNAs,specific for the multicellular stage,degrade rapidly in disaggregated Dictyostelimu cells.Nogalamycin or actinomycin Dand daunomycin protect some of these mRNAs.Cycloheximide stabilizes all of the mRNAs,Puromycin, however,does not protect the mRNAs from destroying.These results imply that the rapid degradation of the late mRNAs during cell dedifferentiating does not depen d on nuclease or protein synthesis de novo.

Key words mRNA stability Dictyostelium RNA synthesis inhibitor Protein synthesis inhibitor

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