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Nucleotide composition of the DNA of Listeria (Russian)

Imamov Kh. A., Alexandrushkina N., Vanyushin B. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The nucleotide composition of the DNA of various L. monocytogenes and L. grayi strains was studied by means of paper cromatography. The GC content of the bases varied from 38.6 to 43.6 mol%. The minor bases (5 methylcytosine and N6 mathyladenine) were not detected. Strain differences in respect of the DNA composition were found in L. monocytogenes cultures belonging both to one and to various serologic types. Similarly to the DNA of other bacteria, DNA of Listeria possessed a low degree of pyrimidine blocking. As regards the distribution of pyrimidine blocks of various length, the DNA of Listeria differed from the DNA of Arthrobacter citreus. The data on the nucleotide composition and the character of pyrimidine distribution in the DNA of Listeria pointed to a marked difference between Listeria and other Corynebacteriaceae.