

病原性レプトスピラictero No.1株の染色体地図と 5S rRNA 遺伝子近傍の遺伝子解析

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Physical and genetic maps of the *Leptospira interrogans* serovar icterohaemorrhagiae strain ictero No.1 chromosome and sequencing of a 19kb-region of the genome containing the 5S rRNA gene

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ABSTRACT We report the construction of physical and genetic maps of chromosome of *Leptospira interrogans* serovar icterohaemorrhagiae strain Ictero No.1 using pulsed-field gel electrophoresis of DNA fragments generated by digestion with enzymes and using reciprocal hybridization. We also sequenced the 19 kilobase DNA segment including the one gene for 5S rRNA (*rrf*) of pathogenic *Leptospira*. The size of the chromosome of the strain Ictero No.1 was estimated to be 4,673 kb. The physical maps of the strains Ictero No.1 and Verdun were almost identical, as were the locations of the selected genes, except for the location of one of the 16S rRNA genes. In the sequenced region, we identified 10 putative ORFs and one *rrf* sequence, and the transcription orientations were all the same. A homology search for the products deduced from the sequenced data revealed that the *orf* H exhibited high similarity to malic acid enzyme and fumarate hydratase (*orf* J).

抄録 病原性レプトスピラ *Leptospira interrogans* Ictero No.1 株の染色体の解析を行った。染色体の分子サイズは 4,673 kb で、その物理地図は同じ血清型に属する Verdun 株のものと同様であった。この度、決定した遺伝子の位置は、染色体上に2分子存在する 16S rRNA 遺伝子のうちの1分子の位置が異なっていたが、そのほかの遺伝

子の位置は Verdun 株と同じであった。さらに、5S rRNA 遺伝子近傍 19kb の領域の塩基配列を決定した。

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