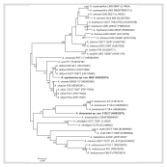
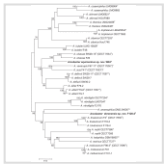
Outline

Figures (2)

Tables (1)

Table 1

Extras (6)

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Arcobacter ebronensis sp. nov. and *Arcobacter aquimarinus* sp. nov., two new species isolated from marine environment

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Abstract

Two strains recovered from mussels (F128-2^T) and sea water (W63^T) were characterized as *Arcobacter* sp., but they could not be assigned to any known species using the molecular identification methods specific for this genus (16S rDNA-RFLP and m-PCR) and *rpoB* gene analysis. The 16S rRNA gene sequence similarity to the type strains of all *Arcobacter* species ranged from 92.2% to 96.7% with strain F128-2^T, and from 94.1% to 99.4% with strain W63^T, the most similar being *A. bivalviorum* (CECT 7835^T) and *A. defluvii* (CECT 7697^T), respectively. The phylogenetic analyses of 16S rRNA, and the concatenated sequences of *gyrB, gyrA, rpoB, atpA* and *hsp60* genes confirmed that strains F128-2^T and W63^T belonged to two new lineages within the genus *Arcobacter*. Moreover, both strains showed differential phenotypic characteristics and MALDI-TOF mass spectra from all other *Arcobacter* species. Therefore, it has been demonstrated the existence of two new *Arcobacter* species and the proposed names are *Arcobacter ebronensis* (type strain F128-2^T = CECT 8441^T = LMG 27922^T), and *Arcobacter aquimarinus* (type strain W63^T = CECT 8442^T = LMG 27923^T).

Keywords

Arcobacter; *A. ebronensis*; *A. aquimarinus*; MLPA; 16S rRNA; MALDI-TOF

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