Microtetraspora malaysiensis sp. nov., isolated from Malaysian primary dipterocarp forest soil

Abstract

The taxonomic position of three actinomycete strains isolated from Malaysian soil was established by using a polyphasic approach. The isolates formed chains composed of four spores on the tip of sporophores branching from the aerial mycelium, and their chemotaxonomic properties were common to those of members of the family Streptosporangiaceae. These phenotypic properties as well as a phylogenetic analysis based on 16S rRNA gene sequences indicated that they should be classified in the genus Microtetraspora. The three isolates showed a unique pattern of cultural, physiological and biochemical properties that distinguished them from previously described species of the genus Microtetraspora. The isolates showed more than 72% DNA relatedness to each other, but only 58% or less relatedness to any previously described species. On the basis of the data presented, a new species of the genus Microtetraspora, Microtetraspora malaysiensis, is proposed. The type strain of the new species is strain H47-7T (=JCM 11278T=DSM 44579T).