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Isolation and Identification of *Bacilus subtilis* MORI Producing 1-Deoxynojirimycin

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One-Deoxynojirimycin (1-DNJ) has been known to have a potential for the treatment of diabetes because it reduces dite-induced hyperglycemia and endogenous insulin secretion by inhibiting intestinal α-glucosidases. In addition, 1-DNJ also has been turned out to show the strong inhibition of viral reproduction. The bacterium producing potent α-glucosidases inhibitors was isolated from cereals. Three α-glucosidases inhibitors were purified from the culture broth by means of column chromatography using a variety of ion-exchange resins. One of the three purified compounds was analyzed by HPLC to examine the chemical properties. The chemical properties of the purified compound were coincided with those of 1-DNJ of silkworms. The amount of 1-DNJ produced in the culture broth was 0.95g per liter. The enzyme inhibition activities of 1-DNJ derived from the bacteria were same as that of silkworms. According to the results of quinone analysis, whole cell fatty acids composition analysis, sugar utilization test and partial 16S rRNA sequencing analysis, the b acterium was identified as *Bacillus subtilis* and named as *Bacillus subtilis* MORI.