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A novel 36 kDa protease from Bacillus cereus KCTC 3674

Young Jae Kim

Department of Microbiology, College of Natural Sciences, Changwon National University, Sarim-Dong, Changwon, Kyungnam 641-773, Korea

Bacillus cereus KCTC 3674 excretes several kinds of extracellular proteases into the growth medium. A protease with molecular weight of approximately 36 kDa on sodium dodecyl sulfate polyacrylamide gel electrophoresis was purified from its culture broth. The 36 kDa protease was a novel enzyme that its N-terminal amino acid sequence up to residue 12 was V-R-D-P-N-A-V-G-T-G-K-G-, and was a metallo-protease that was strongly inhibited by EDTA and o-phenanthroline. Its optimum pH and temperature were 8.0 and 70oC, respectively.

Keywords: Bacillus cereus, extracellular protease, alkaline (metallo-) protease