

P66

**Compared chitinase deleted binding domain with chitinase
from *Bacillus atrophaeus* TBM1652-1 in *E.coli***

Yong-Seok Lee, Ju-Soon Yoo, Soo-Yeol Chung¹,
Young-Choon Lee, Young-Su Cho and Yong-Lark Choi

Department of Biotechnology, Faculty of Natural Resources and Life Science,
Dong-a University, Busan 604-714, Korea.

¹Department of Food Science and Nutrition, Dong-ju College, Busan, Korea.

A chitinase encoding gene from *Bacillus atrophaeus* TBM1652-1 was cloned in *Escherichia coli*. The nucleotide sequencing revealed a single open reading frame containing 1818 bp and encoding 606 amino acid with a 66kDa by SDS-PAGE and Zymogram SDS-PAGE and Zymogram. The chitinase was composed of three domains: catalytic domain, fibronectinIII domain and chitin binding domain. We have deleted fibronectinIII domain and chitin binding domain. The chitinase and mutant chitinase have purified by construction of GST-fusion system. The molecular weight of deleted chitinase was 46kDa, respectively. At we have revealed chitin binding domain plays an important role in colloidal chitin binding by chitin binding assay.