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Comparison of Enzymatic Properties of Microbial Transglutaminase from *Streptomyces* sp.

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The microbial transglutaminase (TGase) from *Streptomyces libani* was purified from its culture broth and its enzymatic properties were compared with those of TGase from *Streptoverticillium mobaraense* var. TGase was purified by ion-exchange chromatography and size-exclusion chromatography. The specific activity of the main component was 10.7 unit/mg protein, lower than that of *Streptoverticillium mobaraense* var. (25 unit/mg). Several differences of enzymatic properties were found between the two enzymes. Optimum temperature, stability and gelation activity of TGase from *Streptomyces libani* were lower than those of TGase from *Streptoverticillium mobaraense* var, while, deamidation activity was higher. In addition, the existence of some TGases with different pI were suggested.

Keywords: microbial transglutaminase, *Streptomyces*, purification, cross-linking, processing

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