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Proline-Specific Peptidases of *Lactobacillus casei* Subspecies

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This paper describes the specific activities for proline iminopeptidases, x-prolyl dipeptidyl peptidase and post proline endopeptidase, from each of two subspecies of *Lactobacillus casei* grown in MRS broth and whey media at 37° C, pH 6.0. The histochemical PAGE of soluble extracts from one subspecies (*Lactobacillus casei* ssp. *casei* LLG) indicated that the two enzyme activities were due to distinct proteins. Except for a slight increase in x-prolyl dipeptidyl peptidase activity, the activities of proline imino- and endopeptidases of cells grown in whey medium did not vary markedly from those of cells grown in MRS broth. The effect of inhibitor agents and pH on the activities of proline iminopeptidase and x-prolyl dipeptidyl peptidase were investigated. The temperature optima and storage stability under different conditions were also studied for these activities.

Key Words: peptidase • proline-specific peptidase • *Lactobacillus casei* • cheese ripening

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