Actividad coagulante del extracto enzimático de tejido abomasal de alpaca sobre leche bovina [

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text (article)

Analítica

The empirical use of alpaca rennet in the production of artisanal cheeses with cow's milk is widespread in the high Andean communities of Perú and Bolivia, and has not been scientifically reported. The objective of the present study was to characterize alpaca rennet and evaluate its coagulating activity. Ready-to-use alpaca curds were collected directly from dairies in four neighborhoods of Viscapalca (Huancavelica-Perú, 4003 masl), which were transported under refrigeration and kept frozen at -20C. The Crude Enzymatic Extract (CEE) was obtained by centrifugation at 560 x g for 10 min at 4C, from which proteins were determined by Bradford, SDS-PAGE electrophoretic profile, coagulation time and proteolytic activity. The traditional management of alpaca rennet is also described. CEE was found to contain 29.80 to 52.91 µg/ml of protein. The SDS-PAGE electrophoretic profile revealed the presence of at least seven different proteins, with molecular weights between 91.6 KDa and 15.3 KDa, the most abundant being the 18.4 KDa and 15.3 KDa proteins, which presumably, chymosin and pepsin would correspond, respectively, both being of lower molecular weight compared to those of bovine origin. The coagulation time was 23 min, under the test conditions, and the best proteolytic activity was recorded at pH 5.5. These results will facilitate further studies on the molecular characterization of alpaca rennet, being necessary to previously purify the proteins present by column chromatography
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