Five anticlostridial Lactobacillus strains isolated from cheese were selected for a mixed adjunct culture. Cheese with the mixed adjunct culture (experimental) and without (control) was made in triplicate and ripened as vacuum-packed and surface-ripened cheese. Cheese gross composition was similar. Excessive gas formation occurred only in control cheeses. In contrast to control cheeses, the experimental cheeses were dominated by the added adjunct Lactobacillus strains (repetitive-PCR). Casein breakdown was not influenced, however, the total amount of amino acids and pH was slightly lower in the experimental cheeses. Anticlostridial nonstarter Lactobacillus strains have potential as protective adjunct cultures against blowing defects in cheese.