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Abstract
Bacillus subtilis natto was isolated from commercial natto. The effects of carbon sources, nitrogen sources, inoculum size and cultivation temperature were investigated producing for nattokinase from Bacillus subtilis natto. The major composition and fermentation condition were soluble starch 3%, yeast extract 1%, inoculum size 3% and the cultivation temperature 31℃.
Effect of additives on the thermal stability of nattokinase during heat treatment were studies. Trehalose, saccharose, lactose and gelatin were effective, whereas surfactant and polyethylene glycol (PEG) were ineffective. The metal ions K+, Na+ and Ca+ could effectively increase the thermal stability of nattokinase.
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