

Ocena przydatności bakterii *Thermus ruber* jako źródła termostabilnej α -glukozydazy użytecznej do wytwarzania syropów glukozydowych

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Evaluation of *Thermus ruber* as a source of thermostable α -glucosidase useful for production of glucose syrups

Summary

Thermus ruber produces α -glucosidase detected in the crude extract of cell proteins. This enzyme exhibits optimum activity at 65°C and pH 6.0. The enzyme was stable within a range of pH 5.5 to 8.0 and in 65°C for 60 min. The rate of *p*-nitrophenol- α -D-glucoopyranoside cleavage was higher than that for maltose. With maltotetraose, maltopentaose and maltohexaose, the hydrolysis rate decreased with increasing the molecular weight of the substrate. Our data suggest that the starch converting process could be improved using α -glucosidase from *Thermus ruber*.

Key words:

α -glucosidase, thermostable enzymes, glucose syrups, *Thermus ruber*

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