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# Czech J. Food Sci. MANDELOVÁ L.,

MANDELOVA L. TOTUŠEK J.

## Chemoprotective Effects of Broccoli Juice Treated with High Pressure

Czech J. Food Sci., 24 (2006): 19-25

We investigated chemoprotective effects of broccoli juice, treated with high pressure method, using 500 MPa for a period of 10 minutes. By the use of this method, the conservation of nutritionally important substances occurs (for example vitamins, polyphenolic compounds, glucosinolates and other constituent substances). We followed the inhibition of mutagenicity of the model mutagen, Nnitroso-N-methylurea (MNU), by means of in vivo micronucleus test. After fourteenday application of broccoli juice (0.2 ml/10 g of body weight of mouse) and after a single administration of MNU mutagen (50 mg/kg), a statistically significant decrease (p < 0.01) occurred of the number of micronuclei induced by the application of MNU. Broccoli juice treated with high pressure therefore seems to have a preventive potential

against MNU-induced micronuclei formation in BALB/C mouse bone marrow cells.

#### Keywords:

micronucleus test; broccoli; antimutagenicity; MNU

[fulltext]

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