

Antitoxic activities of enzymatically synthesized catechin glucoside

Abstract

An indigenous bacterial strain produced a glucosyl transfer enzyme yielding catechin glucoside from soluble starch. The transfer products those could be synthesized from catechin aglycones were determined by thin layer chromatography (TLC). In addition, preventive and reparative effects of catechin glucoside on survival of *Drosophila melanogaster* to paraquat toxicity after being treated with this toxic substance were also examined. We observed that the survival ratio of flies on a diet enriched with catechin glucoside was 83%, while that of control group was 54%. It was suggested that some physical properties of the catechin glucoside were improved and may become antitoxic substance by transglucosylation reaction.