

Inhibitory activity of enzymatically synthesized polyphenol glucosides against melanogenesis and mutagenesis

Abstract

Cyclodextrin glucanotransferase (CGTase) of indigenous microbial strain could synthesis polyphenol glucoside in the presence of polysaccharides and polyphenol. The inhibitory effect of polyphenol glucoside on melanogenesis that had been stimulated by the activity of mushroom's tyrosinase was examined. The polyphenol glucoside inhibited the mushroom's tyrosinase higher than those of arbutin did as comparative commercial glucoside did. The inhibitory effect of polyphenol glucoside on mutagenesis that had been induced by aflatoxin B1 as mutagen was also studied. The polyphenol glucoside exhibited its capacity as antimutagen was slightly higher than those were arbutin and aglycone-polyphenol.