

Inhibition ability of cocoa pod extract on tyrosinase activity

ABSTRACT

Cocoa pod is a waste from cocoa industry. About 75 percentage weight of cocoa fruit is pod. The pods have variety of colors which resemble the various active compounds with potential health benefits. Normally, the cocoa pods were utilized as fertilizers, source of potash and activated carbon. However, the application of cocoa pods as cosmeceutical ingredients has not been extensively explored and documented. The objective of this study was to investigate the effects of cocoa pod extract on tyrosinase activity where good suppression of tyrosinase activity may indicate its potential to be used as skin whitening agent. In tyrosinase assay, the effects of cocoa pod extract on the activity of tyrosinase from mushroom to oxidize L-DOPA substrate were measured. Results showed the cocoa pod extract had better performance of tyrosinase reduction activity at almost two-folds compared with kojic acid and ascorbic acid. Hence, cocoa pod extract has the potential to be used as skin whitening active ingredients.

Keyword: Cocoa pod extract; Cosmeceutical; Skin whitening; Tyrosinase; L-DOPA