Synthesis and Cytotoxic Activities of New Fatty Acid Esters of 20(S)-Protopanaxadiol

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In order to find new lead compounds with antitumour activities, thirteen new fatty acid esters of 20(S)-protopanaxadiol (PPD) were synthesized using oleoyl chloride or fatty acids and \(N,N^\prime\)-dicyclohexylcarbodiimide (DCC). Their cytotoxic activities were tested using the MTT [3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] method, and the structure-activity relationships between the fatty acid esters of PPD and their cytotoxic activities are discussed.

Key words: Protopanaxadiol, Cytotoxic Activities, Structure-Activity Relationships