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Abstract
In this study. the culture of Pycnoporus cinnabarinus after the investigation of its growing conditions, the laboratory cultivation and shaking flask were carried out and the biological activities analyzed , with extracts of fruit bodies and broth of liquid culture. Divided into antibiotic activity, antioxidation, anti-inflammatory activity and cell apoptosis.
The result of this study, antibiotic activity ,the culture fermentation could inhibit the growth of Escherichia coli, Listeria monocttogenes, Pseudomonas glumae and Fusarium moniliforme.
The antioxidant activity showed that in fermented solution from P. cinnabarinus has better scavenging effect on Fenton reaction. In culture condition of sucrose 10% and 15% has reducing power increased with increasing concentration; through condition of sucrose 5% and 7.5% has highest reducing power in 3th fermented solution.
The inhibition of antitumor cells test showed that semberged cultruer in 3th fermented solution has higher than 70% against breast cancer cell (MCF-7), fibrosarcoma cell (HT-1080) and cervical cancer cell (HeLa), liver cancer cell (Hep G2) has higher than 40%. The hot water of extracts from P. cinnabarinus fruit bodies had inhibitory activity for breast cancer cell (MDA-MB-231), fibrosarcoma cell (HT-1080) and breast cancer cell (MCF-7) line(40%、60% and 70% at 1000 g/ml).
In anti-inflammatory, the best activity has EtOH extracts, inhibits NO activity increased with increasing concentration, best activity concentration is 80 g/ml,in iNOS/COX-2 expression, concentration 20 g/ml could inhibit iNOS/COX-2 expression in RAW264.7 cells stimulated by LPS. Furthermore, the cells apoptosis ,MCF-7 cells treated by EtOH/EA extracts of P. cinnabarinus fruit bodies, the result indicated that Sub G1 of value increased with increasing concentration
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