

**Activity-guided Isolation of Mylacen as an Acyl-CoA:
Cholesterol Acyltransferase Inhibitor from
Mylabris phalerate Pallas**

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ACAT (Acyl-coenzyme A: cholesterol acyltransferase, EC.2.3.1.26) inhibitory substance was isolated from the ethyl acetate extracts of *Mylabris phalerate* Pallas (Coleoptera). Activity-guided fractionation of the ethyl acetate extracts led to the isolation of a new compound using silica-gel column chromatography, preparative TLC, and HPLC. The NMR spectroscopic analysis showed the molecular formula of new compound was C₂₉H₃₅NO₄. EI-mass spectrometry gave a molecular mass of 461. This compound is belonging to aza-benzo [α] anthracen serial compound and exhibited inhibitory rat liver ACAT activity (IC₅₀ = 5.6 μ M), inhibitory hACAT1 activity (IC₅₀ = 12.4 μ M) and inhibitory hACAT2 activity (IC₅₀ = 8.7 μ M).