

Title	Metabolism of 32-oxo-24, 25-dihydrolanosterols by partially purified cytochrome P-450 <sub>14</sub> DM from rat liver microsomes
Sub Title	
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Publisher	共立薬科大学
Publication year	1990
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.35 (1990. ) ,p.52- 52
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000035-0052">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000035-0052</a>

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## Metabolism of 32-Oxo-24,25-dihydrolanosterols by Partially Purified Cytochrome P-450<sub>14DM</sub> from Rat Liver Microsomes

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Metabolism of 32-oxo-24,25-dihydrolanosterols (3 $\beta$ -hydroxylanost-8-en-32-al (4,  $\Delta^8$ -CHO) and 3 $\beta$ -hydroxylanost-7-en-32-al (5,  $\Delta^7$ -CHO)) was studied in a reconstituted system consisting of rat liver partially purified cytochrome P-450, which catalyzes lanosterol 14-demethylation (P-450<sub>14DM</sub>), and NADPH-cytochrome P-450 reductase. The reconstituted system converted  $\Delta^8$ -CHO (4) to 4,4-dimethyl-5 $\alpha$ -cholesta-8,14-dien-3 $\beta$ -ol (2, 8,14-Diene), which corresponds to the 14-deformylated product.  $\Delta^7$ -CHO (5), the isomer of  $\Delta^8$ -CHO (4), was not converted to the corresponding 14-deformylated product. The apparent  $K_m$  value of cytochrome P-450<sub>14DM</sub> for  $\Delta^8$ -CHO (4) was about 1/20 of that for 24,25-dihydrolanosterol (1, DHL). The metabolism of  $\Delta^8$ -CHO (4) was inhibited by 7-oxo-24,25-dihydrolanosterol (6, 7-oxo-DHL), which is a potent inhibitor of cholesterol biosynthesis from lanosterol or DHL (1). However, the metabolism of  $\Delta^8$ -CHO (4) was less inhibited by 7-oxo-DHL (6) than that of DHL (1).

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\* 本報告は *Chem. Pharm. Bull.* , 37, 2762—2765 (1989) に発表.