

Title	Metabolism of 24, 25-dihydrolanosterol analogs by partially purified cytochrome P-450 <sub>14</sub> DM from rat liver microsomes
Sub Title	
Author	園田, よし子(Sonoda, Yoshiko) 関川, 善夫(Sekigawa, Yoshio) 佐藤, 良博(Sato, Yoshihiro)
Publisher	共立薬科大学
Publication year	1989
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.34 (1989. ),p.100- 100
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=AN00062898-00000034-0100">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000034-0100</a>

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the Keio Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

**Metabolism of 24,25-Dihydrolanosterol Analogs by Partially Purified  
Cytochrome P-450<sub>14DM</sub> from Rat Liver Microsomes\***

Yoshio SONODA, Yoshio SEKIGAWA and Yoshihiro SATO

園田よし子, 関川善夫, 佐藤良博

27-Nor-24,25-dihydrolanosterol (27-nor-DHL), 26,27-dinor-24,25-dihydrolanosterol (26,27-dincr-DHL), and 25,26,27-trinor-24,25-dihydrolanosterol (25,26,27-trinor-DHL), analogs of 24,25-dihydrolanosterol (DHL) which have no C-27 carbon, C-26, 27 carbons and C-25, 26, 27 carbons, were converted to the corresponding 14-demethylated products using a reconstituted monooxygenase system from rat liver microsomes which contained cytochrome P-450<sub>14DM</sub> catalyzing lanosterol 14-demethylation and NADPH-cytochrome P-450 reductase in the presence of NADPH and molecular oxygen. Each metabolite showed a relative retention time (Rrt) of 0.72 with respect to each substrate in high-performance liquid chromatography (HPLC) on a reversed-phase column. Comparison of each gas chromatography-mass spectrum and Rrt value with those of the metabolite of DHL, 4,4-dimethyl-5 $\alpha$ -cholesta-8,14-dien-3 $\beta$ -ol, indicated that the metabolites could be inferred to be 27-nor-4,4-dimethyl-5 $\alpha$ -cholesta-8,14-dien-3 $\beta$ -ol, 26,27-dinor-4,4-dimethyl-5 $\alpha$ -cholesta-8,14-dien-3 $\beta$ -ol, and 25,26,27-trinor-4,4-dimethyl-5 $\alpha$ -cholesta-8,14-dien-3 $\beta$ -ol. However, 24,25,26,27-tetranor- and 23,24,25,26,27-pentanor analogs of DHL and 20-iso-24,25-dihydrolanosterol were not metabolized by the reconstituted enzyme system.

---

\* 本報告は *Chem. Pharm. Bull.* 37, 718 (1989) に発表.