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Author	曽野, 秀子(Sono, Hideko) 園田, よし子(Sonoda, Yoshiko) 佐藤, 良博(Sato, Yoshihiro)
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## Purification and Characterization of Cytochrome P-450<sub>14DM</sub> (lanosterol $14\alpha$ -demethylase) from Pig Liver Microsomes\*

Hideko Sono, Yoshiko Sonoda, and Yoshihiro Satō

曽野秀子, 園田よし子, 佐藤良博

Cytochrome P-450<sub>14DM</sub>, which catalyzes lanosterol  $14\alpha$ -demethylation, from pig liver microsomes was purified to a state of virtually homogeneous by gel electrophoresis. Its apparent monomeric molecular weight was estimated to be 53,000, by sodium dodecyl sulfate-polyacrylamide gel electrophoresis, and the amino-terminal amino acid sequence was Gly-Leu-Leu-Thr-Gly (Leu) -Asp-Leu-Leu-Gly-Ile. When reconstituted with NADPH-cytochrome P-450-reductase, the enzyme showed a high activity for lanosterol and 24,25-dihydrolanosterol  $14\alpha$ -demethylation. Furthermore, the oxygenated intermediates of 24,25-dihydrolanosterol  $14\alpha$ -demethylation, 32-hydroxy-24,25-dihydrolanosterol and 32-oxo-24,25-dihydrolanosterol, were converted to the 32-nor compound, 4,4-dimethyl-cholesta-8,14-dien-3 $\beta$ -ol, by the reconstituted enzyme system.

<sup>\*</sup> 本報告は Biochim. Biophys. Acta, 1078, 388-394 (1991) に発表.