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**Metabolism of 24,25-Dihydrolanosterol Analogs by Partially Purified
Cytochrome P-450_{14DM} from Rat Liver Microsomes***

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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_{14DM} 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 α -cholesta-8,14-dien-3 β -ol, indicated that the metabolites could be inferred to be 27-nor-4,4-dimethyl-5 α -cholesta-8,14-dien-3 β -ol, 26,27-dinor-4,4-dimethyl-5 α -cholesta-8,14-dien-3 β -ol, and 25,26,27-trinor-4,4-dimethyl-5 α -cholesta-8,14-dien-3 β -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.

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