〔Int. J. Biochem., **21**, 367 (1989)〕

**Separation and Properties of Multiple Forms of Dihydrodiol Dehydrogenase from Hamster Liver.**

HIDEO SAWADA,* AKIRA HARA, MAKOTO NAKAGAWA, FUMITAKE TSUKADA, MARI OHMURA, KAZUYA MATSUURA

Five multiple forms of dihydrodiol dehydrogenase (EC 1.3.1.20) with similar molecular weights of around 35,000 were purified from hamster liver cytosol. All enzyme oxidized *trans*-dihydrodiols of benzene and naphthalene and reduced various carbonyl compounds, but showed clear differences in specificities for other alcohols and cofactors, and in inhibitor sensitivity. Two $NADP^+$-dependent enzymes were immunologically identified with aldehyde reductase (EC 1.1.1.2) and $3\alpha$-hydroxysteroid dehydrogenase (EC 1.1.1.50). The other enzymes with dual cofactor specificity oxidized xenobiotic alicyclic alcohols, and one of them was active on $3\alpha$- and $17\beta$- hydroxysteroids with $NAD^+$ as a preferable cofactor.

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**Partial Purification and Characterization of Epidermal Plasminogen Activator and Their Inhibitor.**

MAKOTO NAKAGAWA, KIMIE FUKUYAMA, WILLIAM L. EPSTEIN, AKIRA HARA, HIDEO SAWADA*

Plasminogen activator (PA) and PA inhibitor were partially purified from 2-d-old rat epidermis and characterized. PA extracted with buffer containing KSCN was first purified by Blue-Sepharose chromatography and separation of two PAs, with Mr 66,000 and 44,000, was accomplished by Con A-Sepharose chromatography. The Mr 66,000 and 44,000 enzymes had the properties of tissue-type PA (t-PA) and urokinase-type PA (u-PA), respectively. PA inhibitor extracted in 1,4-piperazinediethanesulphonic acid buffer showed Mr 60,000 and inhibited human u-PA activity but did not inhibit t-PA from human and murine melanoma cells or plasmin. It inhibited epidermal PA, Mr 44000, more effectively than it did the Mr 66,000 epidermal PA.

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**Monkey Liver Indanol Dehydrogenase. Purification, Properties, and Kinetic Mechaniem.**

AKIRA HARA, KOUJI MOURI, MAKOTO NAKAGAWA, MITSUHIRO NAKAMURA, TOSHIHIRO NAKAYAMA, KAZUYA MATSUURA, HIDEO SAWADA*

Indanol dehydrogenase purified from monkey liver cytosol was a monomer with a molecular weight of 36,000 and pI of 8.7. The enzyme oxidized alicyclic alcohols including *trans*-dihydrodiols of benzene and naphthalene in the presence of both $NADP^+$ and $NAD^+$, and reduced several xenbiotic carbonyl compounds in the presence of NADPH. The results of fluorometric binding and kinetic studies are consistent with an ordered sequential mechanism with $NADP^+$ binding first. The enzyme was inhibited competitively versus $NADP^+$ and uncompetitively versus 1-indanol by 1,10-phenanthroline, and was also inhibited by Cibacron blue competitively versus $NADP^+$ and noncompetitively versus 1-indanol.