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[Lab. of Pharmaceutics]

Purification and partial characterization of an indomethacin hydrolyzing enzyme from pig liver

KEISUKE TERASHIMA, SATOMI TAKAI, YOSHIKO USAMI, TETSUO ADACHI,
TADASHI SUGIYAMA, YOSHIHIRO KATAGIRI, KAZUYUKI HIRANO*

Indomethacin is well known to be metabolized via *O*-demethylation and *N*-deacylation. We found an enzyme involved in the hydrolysis of amide-linkage of indomethacin and partially characterized. The purified enzyme effectively hydrolyzed the amide linkage in indomethacin but not those in substrates for carboxylesterase. The subunit molecular mass of the enzyme was 65 kDa according SDS-PAGE. The K_m and V_{max} values for indomethacin were 67.8 μ M and 9.02 nmol/min/mg protein. The amino acid sequence analysis of the enzyme after cyanogen bromide cleavage showed high homology with a mouse carboxylesterase isozyme designated as ES-male.

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A potential use of a monoclonal antibody to placental alkaline phosphatase (PLAP) to detect lymph node metastases of seminoma

KIYOSHI KOSHIDA, TADAO UCHIBAYASHI, HAJIME YAMAMOTO,
KUNIHICO YOKOYAMA, KAZUYUKI HIRANO*

To evaluate the ability of monoclonal antibodies against alkaline phosphatase (AL-P) for tumor immunolocalization in nude mice. Two monoclonal antibodies against placental alkaline phosphatase (PLAP) and liver alkaline phosphatase (LAP) were intravenously administered to nude mice bearing AL-P producing HeLa Hep 2 tumors. Levels of PLAP or LAP in the HeLa xenografts were shown to be comparable to levels of PLAP in seminomas, including lymph node metastases, or nonseminomas, respectively. A biodistribution study showed that the percentage of the injected dose of I-125 labelled anti-PLAP in the xenografts was rather constant at around 7% until 7 days after injection.

[Obstetrics and Gynecology, 87, 244-248 (1996)]

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Least microtransfusion from mother to fetus in elective cesarean delivery

HO-HSIUNG LIN, JIA-HORNG KAO, HONG-YUAN HSU, MASASHI MIZOKAMI,
KAZUYUKI HIRANO*, DING-SHINN CHEN

To examine the variability of maternal-fetal microtransfusion in different modes of delivery, as measured by hepatitis B surface antigen (HBsAg) and placental alkaline phosphatase. We recruited 97 HBsAg-positive pregnant women. The level of mother-to-fetus microtransfusion was least in the elective cesarean group, as revealed by both the lowest cord placental alkaline phosphatase and HBsAg levels. These observations may have implications for reducing perinatal transmission of blood-borne viruses.