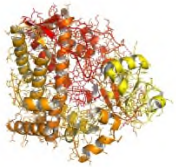
CYP450-GP



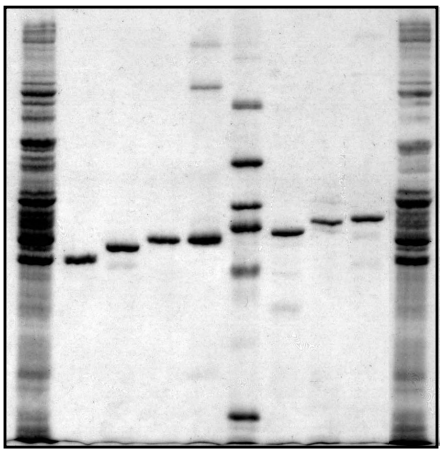
PRODUCT NUMBER Hu-P005
HUMAN LIVER CYP4A11
P450 Enzyme Purified from Human Liver Microsomes
LOT #5

P450 CONTENT =	**16.4 nmol/ml**
PROTEIN CONTENT =	**1.5 mg/ml**
SPECIFIC CONTENT =	**10.9 nmol P450/mg protein**

CYP4A11 was purified from liver microsomes from a single human subject using conventional techniques, including hydrophobic, anion-exchange, and hydroxylapatite adsorption chromatographies. Human CYP4A11 is provided in a solution containing 100 mM potassium phosphate buffer (pH 7.4), 0.1 mM EDTA, 0.1 mM DTT, and 20% glycerol.

♦ Purity

Purity has been determined by electrophoresis on 7.5% acrylamide gels run with the discontinuous buffer system. CYP4A11 migrates as a single band with a molecular weight of 53 kDa (see Fig. 1, lane G). CYP4A11 is a low-spin hemeprotein when oxidized with a ferrous carbonyl Soret maximum at 451 nm.



SDS-PAGE analysis of purified human liver P450 enzymes.
Lanes A & J, human liver microsomes (10 µg)
Lane B, CYP2D6 (0.5 µg)
Lane C, CYP2A6 (0.5 µg)
Lane D, CYP3A4 (0.5 µg)
Lane E, CYP2C8 (0.5 µg)
Lane F, Molecular Weight Standards (0.5 µg each)
Lane G, **CYP4A11** (0.5 µg)
Lane H, CYP2E1 (0.5 µg)
Lane I, CYP2C9 (0.5 µg)

♦ Reconstitution

CYP4A11 catalytic activity is assessed upon reconstitution of the enzyme with NADPH:P450 reductase, synthetic dilauroylphosphatidylcholine and, *importantly*, cytochrome b_5. A reconstituted system containing 50 pmol CYP4A11, 150 pmol human liver P450 reductase, and 15 µg phospholipid exhibits a turnover number of 16.1 min^{-1} with laurate as substrate; in the presence of 200 pmol human liver b_5, laurate 12-hydroxylase activity increases to 45.7 min^{-1}. Full details for reconstitution are given in an accompanying instruction sheet.

♦ **Storage** CYP4A11 should be stored @ -80°C. Avoid repeated freeze-thawing cycles.

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