

R1000.RS9 Lot No. 2110171

Sprague Dawley (SD) Rat Kidney S9 Fraction

Untreated, Male, Pool of 150

1.0 mL at 5 mg protein / mL

Suspension medium: 50 mM Tris·HCl, 150 mM KCl, 2 mM EDTA

Enzyme Activities		Rate
NADPH-cytochrome c reductase	(nmol/mg protein/min)	15.7 ± 0.0
Lauric Acid 12-hydroxylation	(pmol/mg protein/min)	334 ± 11
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	26.4 ± 0.8

Values for enzyme activities were determined at a single substrate concentration and are mean ± standard deviation of three or more determinations.

To measure cytochrome P450 (CYP) activity, kidney S9 samples (0.2 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in potassium phosphate buffer (50 mM, pH 7.4), containing MgCl₂ (3.0 mM), EDTA (1.0 mM), NADP (1.0 mM), glucose-6-phosphate (5.0 mM), glucose-6-phosphate dehydrogenase (1 Unit/mL) and lauric acid (100 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

To measure UDP-glucuronosyltransferase (UGT) activity, kidney S9 samples (0.2 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in Tris·HCl (100 mM, pH 7.7 at 37°C), CHAPS (0.5 mM), EDTA (1.0 mM), MgCl₂ (10 mM), D-saccharic acid 1,4-lactone (100 µM), uridine diphosphate-glucuronic acid (8.0 mM) and 4-methylumbelliferone (1 mM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

Subcellular fractions were prepared from whole kidney.

Animal Information

Species: Rat
 Strain: International Genetic Standard (IGS), Sprague Dawley
 Sex: Male
 Age: ~8 weeks
 Vendor: Charles River, Raleigh, NC

Animals were housed in an AAALAC-accredited facility and allowed to acclimate ≥ seven days before use.

Food: Purina 5L79 (*ad libitum*)
 Water: Automatic watering system (*ad libitum*)
 Light/dark cycle: 5:00 am - 5:00 pm, light; 5:00 pm - 5:00 am, dark (12-hour light/dark)
 Temperature: 70°F ± 2°F
 Humidity: 30-70 %
 Cage: Beta Chip (hardwood), NEPCO, Warrensburg, NY



Store at -80°C

CAUTION: This sample should be considered as a potential biohazard and universal precautions should be followed. Intended for *in vitro* use only.

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Datasheet prepared 09 July 2021