

R1000.I Lot No. 2310282

Sprague Dawley (SD) Rat Intestine Microsomes

Untreated, Male, Pool of 200

150 μ L at 10 mg protein / mL

Suspension medium: 250 mM sucrose

Enzyme Activities		Rate
NADPH-cytochrome c reductase	(nmol/mg protein/min)	66.9 \pm 1.7
Testosterone 6 β -hydroxylation	(pmol/mg protein/min)	165 \pm 10
Midazolam 1'-hydroxylation	(pmol/mg protein/min)	65.0 \pm 3.8
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	167 \pm 13

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

Aprotinin, Leupeptin, and Phenylmethylsulfonyl-fluoride were used in the preparation of these microsomes. Subcellular fractions were prepared from duodenal and jejunal tissue.

To measure cytochrome P450 (CYP) activity, intestine microsomes (0.1 mg/mL) were incubated in triplicate at 37 \pm 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 testosterone (250 μ M) or midazolam (30 μ M), 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, intestine microsomes (0.2 mg/mL) were incubated in triplicate at 37 \pm 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 μ M), 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.

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 \geq 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 \pm 2°F
 Humidity: 30-70 %
 Bedding: Beta Chip (hardwood), NEPCO, Warrensburg, NY
 Cage: Polycarbonate Shoebox Cage, conventional cage



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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This data sheet serves as a Certificate of Analysis and has been approved by **Stephanie Helmstetter, Assistant Director.**
 Signature and Date: Stephanie Helmstetter 25 October 2023