

## D1000.I Lot No. 2110217

Beagle Dog Intestine Microsomes  
 Untreated, Male, Pool of 6  
 150 µL at 10 mg protein / mL  
 Suspension medium: 250 mM sucrose

<b>Enzyme Activities</b>		<b>Rate</b>
NADPH-cytochrome c reductase	(nmol/mg protein/min)	16.7 ± 0.4
Testosterone 6β-hydroxylation	(pmol/mg protein/min)	132 ± 11
Midazolam 1'-hydroxylation	(pmol/mg protein/min)	152 ± 8
Glucuronidation of 4-Methylumbelliferon	(nmol/mg protein/min)	8.80

Values for enzyme activities were determined at a single substrate concentration and are mean ± 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 microsome 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 MgCl<sub>2</sub> (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 µM) or midazolam (30 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, intestine 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), MgCl<sub>2</sub> (10 mM), D-saccharic acid 1,4-lactone (100 µM), uridine diphosphate-glucuronic acid (8.0 mM) and 4-methylumbelliferon (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: Dog; *Canis familiaris*  
 Strain: Beagle  
 Sex: Male  
 Age: >6 months  
 Vendor: Covance, Cumberland, VA

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

Food: Nutrena (*ad libitum*)  
 Water: Automatic watering system, tap water (*ad libitum*)  
 Light/dark cycle: Not monitored  
 Temperature: Ranges from 62°-82°F  
 Humidity: Not monitored  
 Cage: Indoor/outdoor run cages, plastic coated rod bottom, sanitized at lease every 2 weeks



### 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 14 September 2021