



ELEVATING SCIENCE™

Male Wistar Rat Microsomes — Liver, Pooled, Frozen, 10 mg @ 20 mg/mL

Product: M00021 | Lot: BJP

Storage: ≤ -70 °C

Protein & p450 Concentration

Parameter	Specification	Result
Protein	20—26 mg/mL	21.2 mg/mL
Total P450	nmol/mg	0.847 nmol/mg
Volume	≥ 0.5 mL	0.56 mL
Number of Donors	≥ 3 male Wistar rat donors	50 donors

Protein and p450 values are average concentrations of samples from the beginning, middle, and end of the production run.

Metabolic Activity

Enzyme	Substrate	Conc. [μM]	Metabolite	Result**
ECOD	7- Ethoxycoumarin O-deethylation	75	7-HC, 7-HCG, and 7-HCS*	220
UGT	7-Hydroxycoumarin glucuronidation	30	7-HCG	2409
CYP1A2	Phenacetin O-deethylation	15	acetaminophen	64.8
CYP2A6	Coumarin 7-hydroxylation	8	7-HC, 7-HCG, and 7-HCS	0
CYP2C9	Tolbutamide methyl- hydroxylation	150	4'-methylhydroxytolbutamide	37.3
CYP2C19	S-Mephenytoin 4'- hydroxylation	20	4'-hydroxymephenytoin	1.74
CYP2D6	Dextromethorphan O- demethylation	8	dextrorphan	65.6
CYP2E1	Chlorzoxazone 6-hydroxylation	100	6-hydroxychlorzoxazone	144
CYP3A4	Testosterone 6β-hydroxylation	50	6β-hydroxytestosterone	256
CYP3A4	Midazolam 1-hydroxylation	4	1-hydroxymidazolam	24.8

*7-hydroxycoumarin (7-HC), 7-hydroxycoumarin glucuronide (7-HCG), 7-hydroxycoumarin sulfate (7-HCS)

**Metabolite rate of formation is measured in pmol/min/mg

Metabolic assays are run in triplicate. Activity results analyzed by HPLC-UV or LC/MS/MS validated procedures. Metabolite formation for all enzymes is measured after a 30 minute incubation at 37°C, 5% CO₂ and a final protein concentration of 0.5 mg.

Results for this lot have been derived through validated testing methods and confirmed by Quality Assurance.

Caution: This product is being sold for research and/or manufacturing purposes only. The biological samples supplied by BioIVT, or any material isolated from the samples, are for in-vitro research use only and are not to be used as a source of material for clinical therapies. Human material may be used in vivo in animals. The user assumes all responsibility for its usage and disposal, in accordance with all regulations.

*As of March 5th, 2018, "BioIVT" will replace the current brand of BioreclamationIVT and those of each of its affiliates and subsidiaries: IVT Holdings Inc., Asterand Bioscience, Inc., Asterand UK Acquisition limited, Asterand US Acquisition Corporation, Labquote.com LLC, ILSBio LLC, Seratrials LLC, Sera Laboratories International Ltd., Translational Cell Science LLC, Bioreclamation-IVT India Private Limited, In Vitro Inc., In Vitro GmbH, Qualyst Holdings LLC, Qualyst Transporter Solutions LLC.

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