

## H2D6.HA Lot No. 1710127

Human Liver Microsomes

Male, Individual No. 1047

0.5 mL at 20 mg protein / mL

Suspension medium: 250 mM sucrose

### Genotype, Specific Content and Activities <sup>a</sup>

### Content / Rate

|                              |                       |                   |
|------------------------------|-----------------------|-------------------|
| CYP2D6 Allelic variant       |                       | CYP2D6*1x2+*76/*2 |
| Cytochrome P450              | (nmol/mg protein)     | 0.176             |
| Cytochrome b <sub>5</sub>    | (nmol/mg protein)     | 0.314             |
| NADPH-cytochrome c reductase | (nmol/mg protein/min) | 213 ± 7           |

| Enzyme   | Marker Substrate Reaction        | [S] (µM) | Rate (pmol/mg protein/min) |
|----------|----------------------------------|----------|----------------------------|
| CYP1A2   | Phenacetin O-dealkylation        | 80       | 309 ± 14                   |
| CYP2A6   | Coumarin 7-hydroxylation         | 50       | 291 ± 28                   |
| CYP2B6   | Bupropion hydroxylation          | 500      | 83.3 ± 9.5                 |
| CYP2C8   | Amodiaquine N-dealkylation       | 20       | 615 ± 28                   |
| CYP2C9   | Diclofenac 4'-hydroxylation      | 100      | 1260 ± 80                  |
| CYP2C19  | S-Mephenytoin 4'-hydroxylation   | 400      | 12.4 ± 0.2                 |
| CYP2D6   | Dextromethorphan O-demethylation | 80       | 452 ± 17                   |
| CYP2E1   | Chlorzoxazone 6-hydroxylation    | 500      | 1190 ± 20                  |
| CYP3A4/5 | Testosterone 6β-hydroxylation    | 30       | 681 ± 61                   |
| CYP3A4   | Midazolam 1'-hydroxylation       | 250      | 308 ± 22                   |
| CYP4A11  | Lauric acid 12-hydroxylation     | 30       | 631 ± 37                   |

Characterization is performed when the first lot of a product from a given subcellular fraction (e.g., S9) is prepared. Subsequent lots are subject to a verification test only. 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, liver microsomes (50 µg/mL) were incubated in triplicate at 37 ± 1°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 marker substrate, at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards. FMO activity was measured under similar conditions except the protein concentration was 1 mg/mL and the buffer was 49 mM Tricine (pH 8.5)

| Sample | Gender | Age (yrs) | Race     | Cause of Death           |
|--------|--------|-----------|----------|--------------------------|
| H1047  | Male   | 53        | Hispanic | Cerebrovascular accident |

#### Serology information

- This donor tested positive for cytomegalovirus
- This donor tested negative for HIV, HbsAg, and HCV\*
- This donor tested negative for RPR\*\*

\* Antibody to Human Immunodeficiency Virus, Hepatitis B Surface Antigen, Antibody to Hepatitis C Virus, respectively.

\*\* Rapid Plasma Reagin.



## 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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