Microsomes were prepared from a donor human liver (single subject) using conventional homogenization and centrifugation techniques. Liver microsomes are provided in a solution containing 10 mM potassium phosphate buffer (pH 7.4) and 250 mM sucrose. The sample exhibits a typical P450 ferrous carbonyl absorption spectrum with minimal P420 content. Individual P450 enzyme content, which was assessed by immunoblotting with specific antibodies, is shown below:

- CYP2A6: 146 (131.2 ± 28; n = 17)
- CYP2C9: 68.6 (85.3 ± 29; n = 20)
- CYP2C19: 1.7 (13.8 ± 13; n = 19)
- CYP2D6: 48.5 (83.5 ± 53; n = 13)
- CYP2E1: 62 (88.7 ± 37; n = 21)
- CYP3A4: 66 (50.9 ± 28; n = 21)
- CYP4A11: 12.4 (39.7 ± 22; n = 21)

* CYP2C9, CYP2C19 and CYP4A11 are expressed as pmol/mg protein whereas CYP2D6, CYP2A6, CYP2E1 and CYP3A4 are ranked against the levels of these microsomal enzymes in a "standard" subject.
* Values in parentheses denote the P450 enzyme content (mean ± S.D) in liver microsomes from 13 - 21 different individuals.

**Activity**
HLM-006 liver microsomes catalyze omeprazole 5'-hydroxylation (a CYP2C19-promoted reaction) at a rate of 18 pmol product formed/min/mg protein compared to the overall rate (mean ± SD) of 48 ± 3 pmol product formed/min/mg protein among 15 different subjects.

**Storage**
Microsomes should be stored @ -70°C. To avoid repeated freeze-thawing cycles, small volume aliquots can be prepared.