



KRISHGEN BIOSYSTEMS



XenoTech's scientists have performed drug development studies in over 1000 New Molecular Entities (NMEs), and, with extensive product offerings have satisfied the needs of hundreds of pharmaceutical, chemical, food, academic, and regulatory organizations throughout the world.

Subcellular Fractions

Xenotech standard products feature subcellular fractions from several different tissues (lung, kidney, intestine, and liver) and a variety of toxicologically-relevant species including: human, monkey, dog, rabbit, guinea pig, rat, hamster, and mouse.

- **Microsomes**
- **S9**
- **Cytosol**
- **Mitochondria**
- **Reaction Phenotyping Kit**

Microsomes

XenoTech carries a large variety of microsomes from toxicologically relevant species: Human, Monkey, Dog, Rat, Mouse, Rabbit, Guinea Pig, Hamster and Mini-pig.

Liver microsomes (endoplasmic reticulum) are supplied at a concentration of 20 mg/mL, suspended in 250 mM sucrose. This useful *in vitro* test system contains cytochromes P450, flavin-monooxygenases, carboxylesterases, epoxide hydrolase, UDP-glucuronosyltransferases and other drug-metabolizing enzymes.

S9

The S9 fraction (post-mitochondrial supernatant fraction) is a mixture of microsomes and cytosol. Accordingly, it contains a wide variety of phase I and phase II enzymes including P450 enzymes, flavin-monooxygenases, carboxylesterases, epoxide hydrolase, UDP-glucuronosyltransferases, sulfotransferases, methyltransferases, acetyltransferases, glutathione S-transferases and other drug-metabolizing enzymes.

XenoTech carries a large variety of S9 from toxicologically relevant species: Human, Primate, Dog, Rat, Mouse, Rabbit, Guinea Pig, Hamster and Mini-pig.

Cytosol

Human liver cytosol (the soluble fraction) contains many xenobiotic metabolizing enzymes including carboxylesterases, soluble epoxide hydrolases, alcohol dehydrogenases, aldehydes oxidases, xanthine oxidases, diamine oxidases, sulfotransferases, glutathione S-transferases, etc.

XenoTech prepare cytosol from toxicologically relevant species: Human, Primate, Dog, Rat, Mouse, Rabbit, Guinea Pig, Hamster and Mini-pig.

Mitochondria

Human liver mitochondria contain monoamine oxidases A and B (MAO A and B), aldehyde dehydrogenases and other xenobiotic-metabolizing enzymes. Human liver mitochondria are supplied at a standard concentration of 20 mg/mL in 50 mM TRIS+HCl (pH 7.4 at 4°C) containing 150 mM KCl and 2 mM EDTA. Donor information is included with each order. This product is intended for *in vitro* studies of xenobiotic metabolism.

Reaction Phenotyping Kit

The Reaction Phenotyping Kit (RPK), Catalog number H0500, is designed to identify the human liver CYP enzyme(s) responsible for metabolizing a drug (or other xenobiotic), in order to predict pharmacokinetic variability, which can occur when a drug is metabolized by a polymorphically-expressed CYP enzyme. Samples in the kit are carefully selected to minimize correlations and avoid outliers that can interfere with reliable results.