
Microsomal Stability

Cyprotex has extensive experience in the delivery of high quality microsomal stability data to support early ADME screening. High throughput liquid handling automation is combined with high resolution mass spectrometry for rapid data delivery to feed into drug discovery programs. We use a standardized and highly reproducible assay for the accurate assessment of intrinsic clearance and half-life. Later stage regulatory services for drug-drug interactions and multi-species metabolite profiling and identification are also available.

▶ Microsomal Stability Protocol

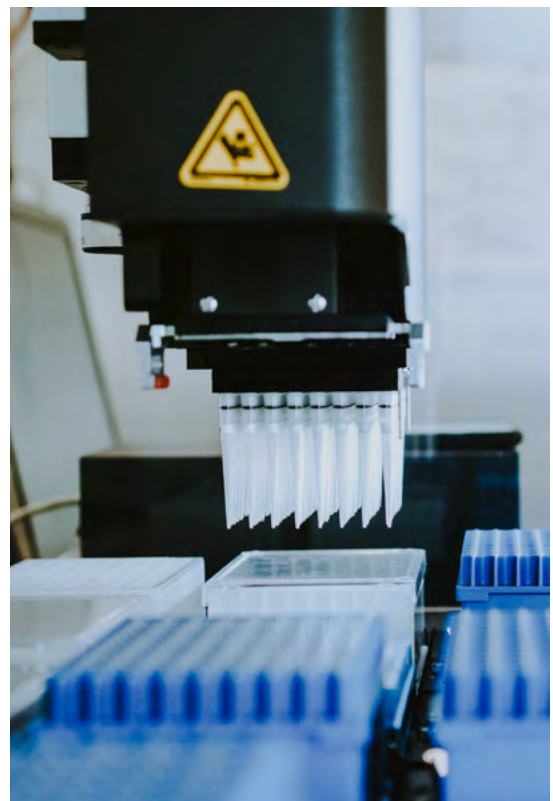
- test article disappearance in the presence of liver microsomes and NADPH
- sample analysis by generic LC-TOF-MS method
- delivery of intrinsic clearance (CL_{int}) and half-life ($t_{1/2}$)

▶ Related Services

- metabolite profiling and identification (from soft spot to full structural elucidation)
- reactive metabolite screening
- reaction phenotyping
- PBPK modeling

▶ Application

- forms part of Tier 1 early ADME screening package so assists with decision-making in hit-to-lead and lead optimization
- *in vivo* clearance and pharmacokinetic prediction
- species differences in drug metabolism
- insight into metabolic biotransformations
- reaction phenotyping studies for drug-drug interaction packages





Benefits of using Cyprotex

- ▶ **Key markets.** Our facilities are based in Europe and the USA covering a range of time zones and allowing us to access a global market.
- ▶ **Industry validated protocols.** Our protocols are based on industry-accepted protocols and are used routinely by our clients to assist them making decisions in drug discovery.
- ▶ **Designing screening strategies.** Our experienced ADME experts can guide you on tiered screening strategies based on your chemistry and intended target. You will be supported by a dedicated study manager for your project.
- ▶ **Rapid turnaround.** Standard turnaround is 5 days on key assays. Regular screening contracts can benefit from < 72 hr turnaround on key assays.
- ▶ **Flexible approach.** For larger scale regular projects, customer-specific protocols can be designed and implemented on our high throughput platform.
- ▶ **Sample management.** Store your compound libraries or samples at Cyprotex to save time and cost. Various storage options are available with tracking and sample management through Titian Mosaic software.

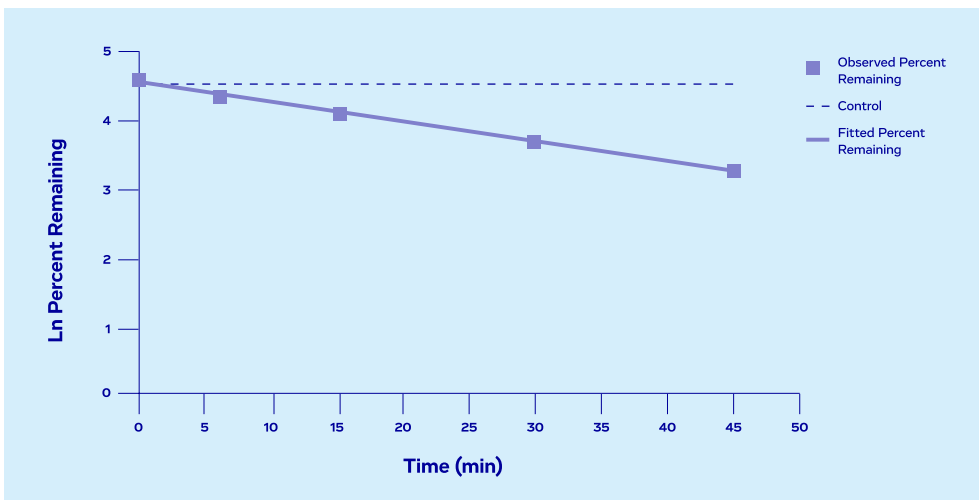


Figure 1:

Graph shows test article disappearance with time in the presence of liver microsomes and NADPH.

- ▶ Range of species and strains available
- ▶ Potential to supplement with additional co-factors to study phase II metabolism
- ▶ Alternative tissues and subcellular fractions available
- ▶ Potential to couple with metabolite profiling and identification service

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