
High Throughput ADME

Cyprotex has extensive experience in the design and implementation of high throughput ADME projects. Smaller screening projects benefit from our standard high throughput assays which offer industry standard protocols on a rapid 3–5 day turnaround. For regular high capacity screening projects we have the flexibility to set-up customer-specific protocols with a turnaround time of <72 hrs on key assays.

▶ **Physicochemical Profiling**

- ionization (pK_a)
- lipophilicity ($\log P$, $\log D_{\text{shake flask}}$, CHI)
- solubility (precipitation and dissolution)
- chemical stability

▶ **Drug Metabolism**

- CYP & non-CYP
- microsomal, hepatocyte, S9, cytosolic, plasma & recombinant enzyme stability
- reversible & time-dependent inhibition
- nuclear receptor activation
- metabolite profiling (soft-spot)

▶ **Drug Permeability & Transporters**

- PAMPA
- Caco-2 & MDCK-MDR1 permeability
- ABC & SLC transporter evaluation

▶ **Protein binding**

- plasma, blood, microsomal & tissue binding

▶ **Pharmacokinetics**

- rodent PK models
- AAALAC accredited

▶ **Bioanalysis**

- small molecules and diverse modalities





High Throughput ADME Services

- ▶ **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 assays are based on industry-accepted protocols and are used routinely by our clients to assist them making decisions in drug discovery. We offer a range of assay variations from rapid screening methods (e.g., reversible cocktail inhibition and single point time dependent inhibition) to more informative screening methods (e.g., reversible IC₅₀ inhibition and time dependent IC₅₀ shift).
- ▶ **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.

Experience

- ▶ Dedicated study managers are assigned to your project
- ▶ Consultancy from experienced ADME experts
- ▶ High quality data using validated methods
- ▶ Comprehensive range of ADME-Tox services

Liquid Handling Platforms

- ▶ Rapid pipetting (96 and 384 well)
- ▶ ECHO acoustic pipetting
- ▶ Tecan and Agilent liquid handling platforms
- ▶ Sample and plate barcoding
- ▶ Managed by LIMS
- ▶ Sample management tracked through Titian Mosaic software

Analytical Platforms

- ▶ LC-MS/MS, LC-MS
- ▶ High resolution mass spectrometry (HRMS)
- ▶ Radiochemical detection (³H and ¹⁴C)
- ▶ SelexION differential mobility separation
- ▶ Chromatography using different separation modes (HILIC, ion pair, ion exchange and chiral chromatography)

Related Services

- ▶ Comprehensive range of early and late stage ADME-Tox services
- ▶ Modeling and simulation (PBPK, PK/PD, QSAR)
- ▶ Regulatory drug-drug interaction packages

Cyprotex Europe

Tel (UK): +44 1625 505 100

No. 24, Alderley Park, Mereside, Cheshire SK10 4TG, UK

Cyprotex US

Tel: +1 888 297 7683

200 Staples Drive, Framingham, MA 01702, USA