



XENOTECH

A BioIVT Company

DISCOVERY

XenoTech's Discovery Plus™ Metabolic Stability service offers rapid turnaround

Discovery Plus™
Metabolic Stability

XenoTech's Discovery Plus™ Metabolic Stability service is more than just a quick screen. The early determination of *in vitro* drug metabolic stability is an essential factor in the estimation of *in vivo* clearance. This is important because compounds with favorable pharmacokinetic properties can be selected in the discovery setting for further development. XenoTech's Discovery Plus™ metabolic stability screen is a service designed to meet the needs of drug discovery teams, by screening multiple drug candidates in industry standard test systems (e.g. S9, microsomes, etc.) with multiple species and rapid turnaround times.

Discovery Plus™ Metabolic Stability Overview

Discovery Plus™ metabolic stability uses XenoTech's own subcellular products to evaluate metabolic stability of up to 16 new drug candidates with three species per assay, or up to 8 new drug candidates with six species per assay. Automated liquid handlers perform the incubations, while drug loss is measured with generic LC-MS/MS methods, resulting in consistent and reliable data with rapid turnaround times.

Discovery Plus™ Metabolic Stability Overview

- Screens are performed at four optimal time points (short-, medium-, long-time course options, to max of 120 minutes)
- Simultaneously evaluate batches of 6-8 compounds and a positive control or up to six different species with single determination*
- Generic LC-MS/MS method utilized with generic internal standards for sample analysis
- Positive control included upon request (e.g. 7-ethoxycoumarin, midazolam)
- Tabular data summary typically within 10 business days of project start

*Duplicates or more can be performed upon request with modified compound throughput

Discovery Plus™ Metabolic Stability Results

- Measurements of drug loss over 4 time points
- Determination of drug half life ($t_{1/2}$) and elimination rate constant (k_{el})
- Estimation of *in vitro* intrinsic clearance (CL_{int})
- Data presented as a tabular summary sorted by test system

Benefits

- Flexibility to use different subcellular fractions or cofactors
- Broad range of time points
- Robust endpoints ($t_{1/2}$, k_{el} , CL_{int})
- Rapid turnaround
- Results can assist in the design of definitive metabolic stability studies
- Budget-friendly

Follow-up Services Available (at an additional charge)

- Definitive metabolic stability assessment
- Reaction phenotyping (rCYP, microsomes, etc.)
- Correlation Analysis
- Metabolite Characterization
- Consultation on results

Additional Discovery Plus™ Services

- **Drug Inhibition**
- **Enzyme Induction**
- **Protein Binding**

Contact us to learn more about XenoTech's full suite of **Discovery Plus™ Services**. Visit us online at www.xenotech.com or call **913.438.7450**