eurofins | DISCOVERY

IN VITRO ASSAYS

IN VITRO SAFETY PHARMACOLOGY PROFILING

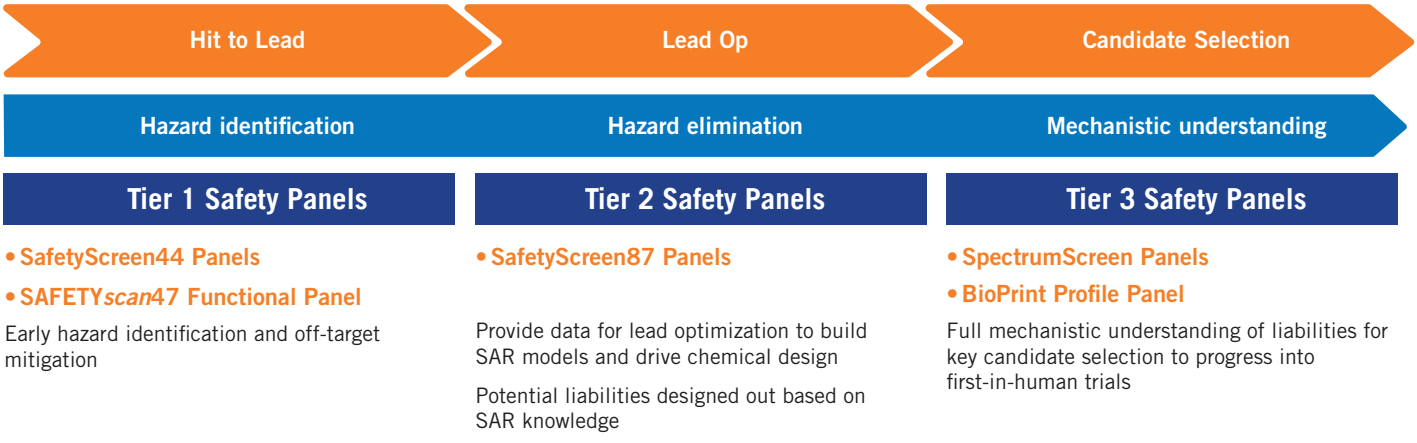
Comprehensive Panels for Selecting Safer Drug Candidates

Safety-related drug failures are a leading cause of compound attrition at all stages of drug discovery and development. *In vitro* safety pharmacology profiling is an integrated essential component of drug discovery and is used extensively throughout the discovery process for early hazard identification and off-target mitigation, and to predict clinical adverse effects to reduce unwarranted attrition. Regulatory authorities expect diligence to be employed to determine off-target effects with panels of *in vitro* biochemical and cellular functional assays.

With over 40 years of *in vitro* safety pharmacology expertise testing tens of thousands of client compounds, Eurofins Discovery provides the most comprehensive industry-leading gold standard *In Vitro* Safety Pharmacology Panels. Clients have access to fit-for-purpose panels for quick and accurate evaluation, for the prediction and mitigation of potential risks from off-target-related adverse drug reactions (ADRs), as well as to help them identify unsafe compounds earlier and design/select better drug candidates with an increased likelihood of becoming marketed drugs.

INTEGRATION OF *IN VITRO* SAFETY PHARMACOLOGY PROFILING IN THE DRUG DISCOVERY PROCESS

Fit-for-purpose panels for quick and accurate evaluation, prediction, and mitigation of potential risks at each stage.



Eurofins Discovery offers one of the largest portfolios in the industry including leading safety pharmacology panels such as SpectrumScreen®, SAFETY*scan*®, and SafetyScreen™.

SAFETY PANELS

Enabling you to quickly design, select, and process with the right molecules

TIER 1 *IN VITRO* SAFETY PHARMACOLOGY PROFILING PANELS

Confirmatory functional and binding assays for early hit-to-lead hazard identification

Panel Name	Catalog #	Turnaround Time	Key Features
SafetyScreen44 Panel[1]	P270	10 days	Tier 1 SafetyScreen™ & SafetyScan® panels include targets and pathways which are now well established as contributors to clinical ADRs and the minimum list of targets that qualify for early hazard identification, off-target-related risk assessment and mitigation.[2] Thus SafetyScreen44 binding, SAFETY*scan* 47, & SafetyScreen functional panels are the first step of early safety evaluation of drug candidates on clinical adverse event predictions. The ability to test compounds in both functional and binding assays provides a comprehensive assessment with confirmatory data that further refines predictive safety information to aid the decision-making process for the drug discovery program.
SafetyScreen44 Panel[1]	PP241	10 days	
SAFETY*scan*47 KdMAX Functional Dose Response Panel[1]	87-1003DR	20 days	
SafetyScreen Functional Panel[1]	P347	20 days	

TIER 2 *IN VITRO* SAFETY PHARMACOLOGY PROFILING PANELS

Provide key data for lead optimization

Panel Name	Catalog #	Turnaround Time	Key Features
SafetyScreen87 Panel[1]	PP223	10 days	A selection of Tier 2 *in vitro* Safety Pharmacology Profiling panels to provide data for lead optimization to build SAR models and drive chemical design, and design out potential off-target related liability based on SAR knowledge.
SafetyScreen87 Panel[1]	P342	10 days	

TIER 3 PRE-IND *IN VITRO* SAFETY PHARMACOLOGY PROFILING PANELS

Comprehensive mechanistic understanding of off-target liabilities prior to IND submission

Panel Name	Catalog #	Turnaround Time	Key Features
BioPrint Profile Panel[1]	P22-p	15 days	A selection of Tier 3 *in vitro* Safety Pharmacology Profiling panels to enable a comprehensive mechanistic understanding of off-target liabilities for key candidate selection to progress into first-in-human trials.
SpectrumScreen Panel[1]	PP16	10 days	

1. Similar panels are offered at our multiple sites to assist our regional clients for fast data turnaround
2. Reducing safety-related drug attrition: the use of *in vitro* pharmacological profiling, *Nature Review Drug Discovery* 11, 909-922 (December 2012)

* Delta panels between tiers are available for compounds tested already on earlier tier panels.

Eurofins Discovery's experienced team of scientists can work hand in hand during off-target selection and panel design. We help design customized fit-for-purpose *in vitro* safety profiling panels to meet the specific needs of your drug discovery program and can provide valuable input in data interpretation, as well as recommend the best next step in your study design to advance your program successfully.

For more information on *In Vitro* Safety Pharmacology Panels, please visit → eurofinsdiscovery.com