

Drug profiling platform

Small molecule-protein interaction screening services



Our drug profiling platform helps you to

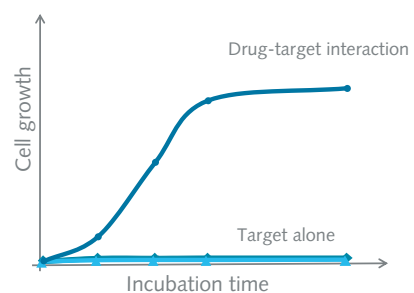
- Characterize the mechanism of action of your drug candidate
- Identify off-target effects early in the development process
- Move your drug towards novel indications

We offer

- We screen your drug of interest against a cDNA library of choice
- We selectively isolate targets interacting with your drug
- We validate the drug-target interactions by different independent follow up assays

Key benefits

- Identify the leads with the highest potential among your candidates
- Get more information about your lead and detect potential risks early in development!



In vivo measurement of a drug-target interaction

Custom Service Procedure

Part I: Compound derivatization and toxicity test

- You provide us with a small molecule
- The small molecule is synthesized as a derivative linked to an anchor moiety
The anchor moiety serves to couple the derivatized compound to the bait scaffold and a flexible linker ensures that no sterical hindrance occurs.
- Optional: Synthesis may be performed by customer
- Toxicity test and optimization of screening conditions

Part II: cDNA library transformation and compound-dependency test

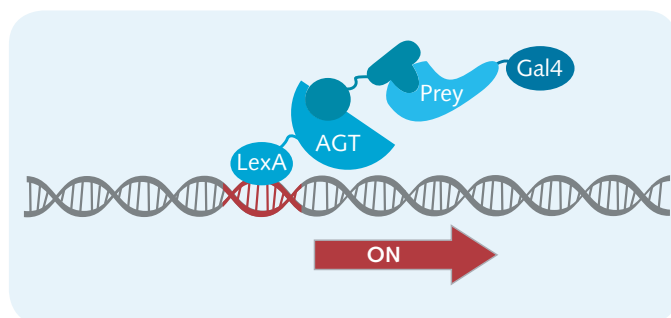
- The derivatized compound is screened against a cDNA expression library.
- Compound-dependent interactors are selectively isolated

Part III: Clone analysis and annotation

- Identification of cDNAs encoding compound dependent interactors
- Confirmation of compound dependency for selected targets

Part IV: Follow up assays

- Competition assay
- *In vitro* binding assay
- Validation of interaction in human cells



AGT is expressed in yeast as a fusion protein with the DNA-binding domain LexA. The prey is expressed in the same yeast cell as a fusion protein with the activation domain (Gal4) of the same transcription factor. The derivatized compound is captured to the bait scaffold by interaction with AGT. Upon interaction of compound of interest with a prey protein, the transcription factor is reconstituted and activates the reporter gene (red arrow), resulting in growth of the yeast cells under selection.

Service Part	Service Part description
Service Part I	Drug derivatization / Toxicity test
Service Part II	cDNA library Screening
Service Part III	Clone analysis and annotation
Service Part IV	Follow up assays