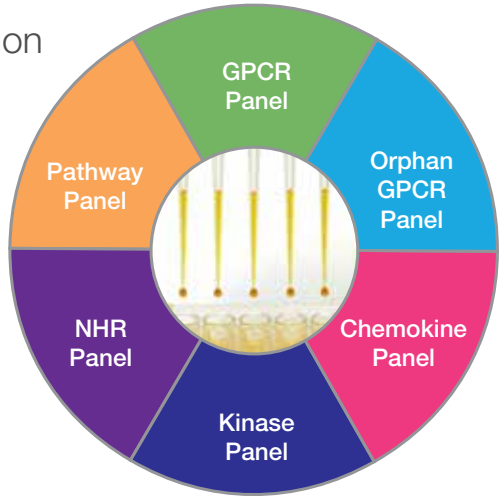
PathHunter®
MAX Panel Screening & Profiling Services

Rapid Target Discovery, Validation, and Selectivity Determination

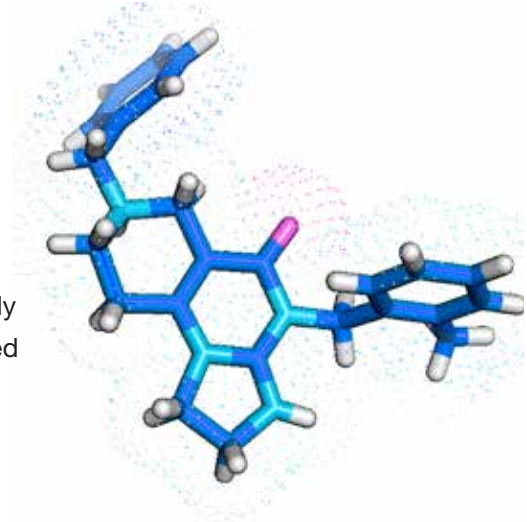


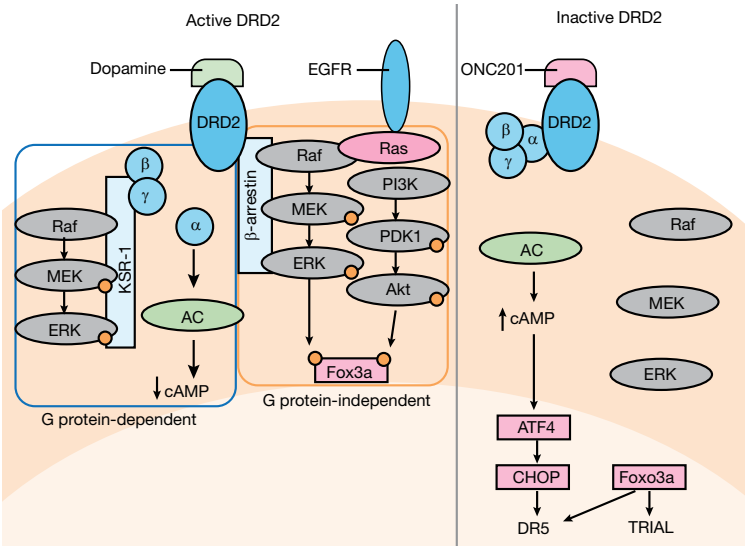
DiscoverX offers broad panels of functional cell-based assays for GPCRs, Kinases, Nuclear Hormone Receptors (NHRs), Pathway Assays, and Therapeutic Disease panels that enable rapid profiling of compounds for determination of selectivity or safety of potential drug candidates. These panels offer powerful tools to validate novel targets, jump start new discovery programs, or determine on- or off-target activity.

Case Study

Discovering ONC201's Target

DiscoverX customer, Oncoceutics, has a lead imipridone known as ONC201. Discovered in 2009 using a phenotypic screen, the binding target was initially unknown. It was first tested against kinases, proteases, and nuclear hormone receptors, known targets of FDA approved oncology drugs. However, ONC201 did not interact with any of these proteins. In order to identify the protein ONC201 interacted with, Oncoceutics utilized the PathHunter *gpcr*MAX panel to screen ONC201 against a receptor panel of 168 assays for known human GPCRs. With this broad panel screen, it was discovered that ONC201 selectively antagonizes the GPCR D2 dopamine receptor (DRD2). Further research validated DRD2 antagonism by ONC201 can be observed in human patients and that the interaction triggers ONC201's impact on downstream signaling pathways and tumor cell death.





DRD2 signaling upon stimulation involves downregulation of cAMP and upregulation of Ras signaling. DRD2 was identified as a selective antagonist of DRD2 receptor using PathHunter *gpcr*MAX panels. Dose response curves using PathHunter *gpcr*E/IC50 services was used to determine the accurate potencies of this molecule for DRD2 receptor. Credit: Oncoceutics Inc.

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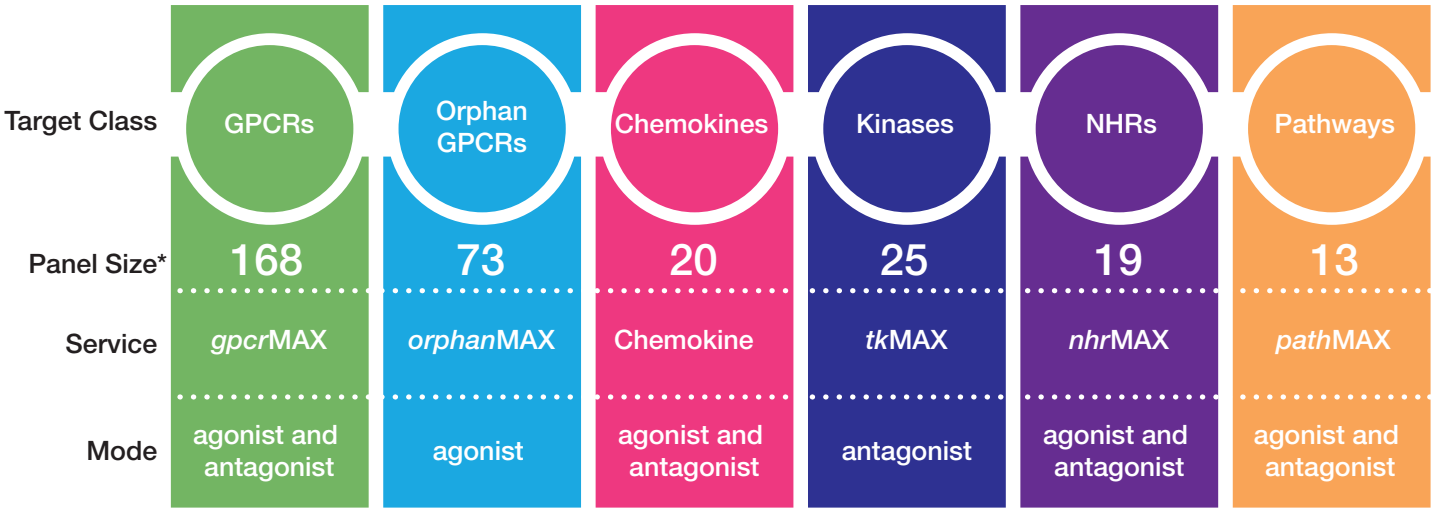
Broad Panel Screening and Profiling



Therapeutic panels are available for CNS, metabolic, cardiovascular, and other disease areas.

***Assay numbers for panels may change if assays are added or discontinued.**

Important Scheduled Panel Dates

Select the panel date that works best for your target validation and selectivity testing and submit your compounds for screening by the dates indicated below.

2017 *gpcr*MAX Panel Compound Delivery Calendar

Jan	Mar	Apr	Jun	Jul	Aug	Oct	Nov
27	10	21	2	14	25	6	22

2017 *nhr*MAX, *tk*MAX, *and path*MAX Panel Compound Delivery Calendar

Feb	Mar	May	Jun	Jul	Sep	Oct
10	24	5	16	28	8	20

Learn more about MAX panels at discoverx.com/pathhunter

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