

Cancer Cell Panel - Screening Services

One of the industry's most expansive and insight-rich cancer cell line panels

Pharmaron's flexible, start-anytime cancer cell panel screening keeps your oncology programs moving forward by eliminating inflexible screening windows and delivering the data you need, when you need it. With rapid turnaround and deep multi-omics insights, our platform provides the clarity required to advance your compounds with confidence.

✓ Identify Sensitive Cancer Types & *In Vivo* Models

Identify the most responsive cancer types & *in vivo* models for your compounds.

✓ Discover Predictive Biomarkers

Uncover biomarkers that link genomic/proteomic characteristics to drug response.

✓ Optimize Dosing & Combinations

Define optimal dosing and identify synergistic drug combinations to boost efficacy.

✓ Predict Clinical Response Potential

Estimate clinical translation likelihood using predictive cell-line data.

1,000 validated cancer cell lines from 30 cancer types

2D or 3D cell viability assays with Cell Titer-Glo readout

Maximum flexibility with customized plate layouts

1,000

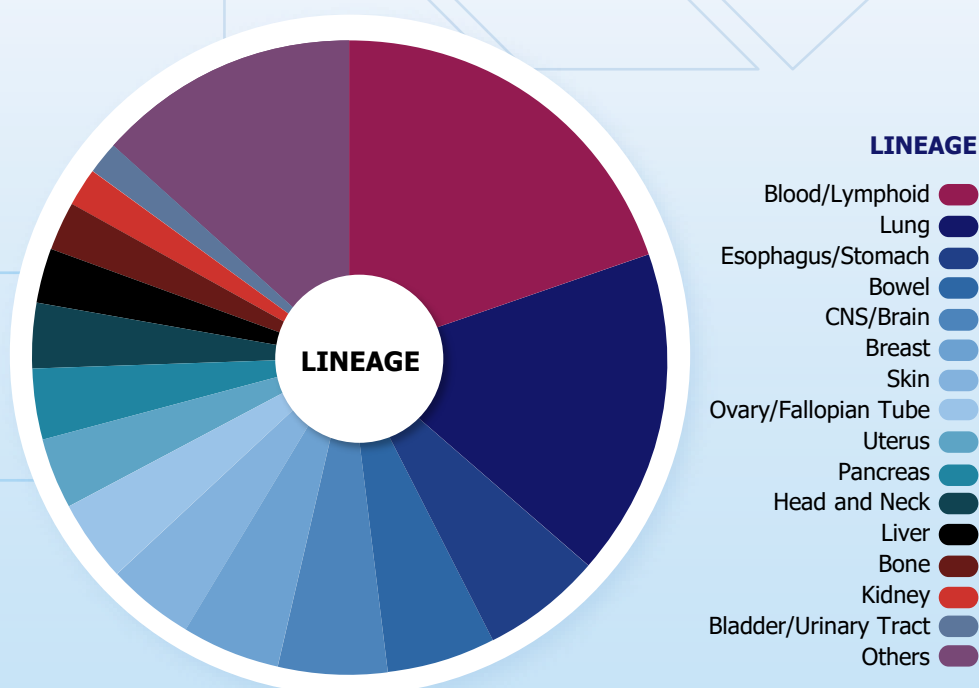
Validated cell lines

250

Cell lines screened per month

Custom-tailored

Plate layout



Driven by Science to Help our Partners Succeed

Quality Data

- Seeding density is set to reach approximately 80% confluency at endpoint
- Assays are performed at low passage to prevent genetic drift
- Each cell line undergoes quality testing for identity, cell contamination, & mycoplasma
- Standardized assay controls and predefined QC criteria support data consistency and reproducibility

Tailored Approach

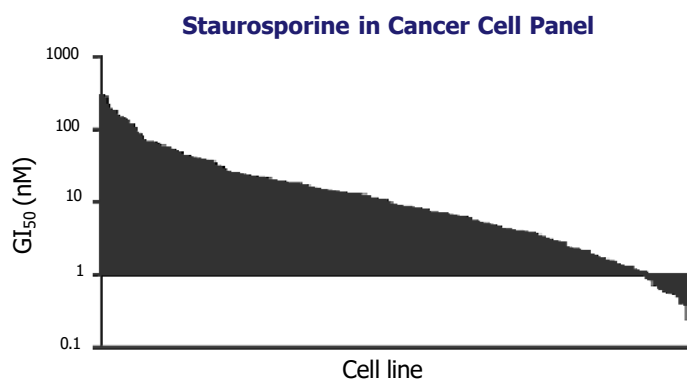
- Request a custom panel from our extensive bank of over 1,000 cell lines
- Customized plate layout (# of compounds, # of replicates)
- Incubation time up to 7 days (longer incubation times upon request)

Advanced Options

- Drug combination effects can be analyzed via SynergyFinder or ComBenefit systems; matrix combination analysis can be performed using the ZIP, Loewe, HSA, and Bliss reference models
- Most cell lines are established as in vivo models for seamless transition
- Advanced screening with 3D spheroid culture is available
- Determination of genomic and proteomic biomarkers associated with drug response is supported by our bioinformatics unit.
- Orthogonal mechanistic and biomarker readouts, including Western blot and HTRF, are available upon request

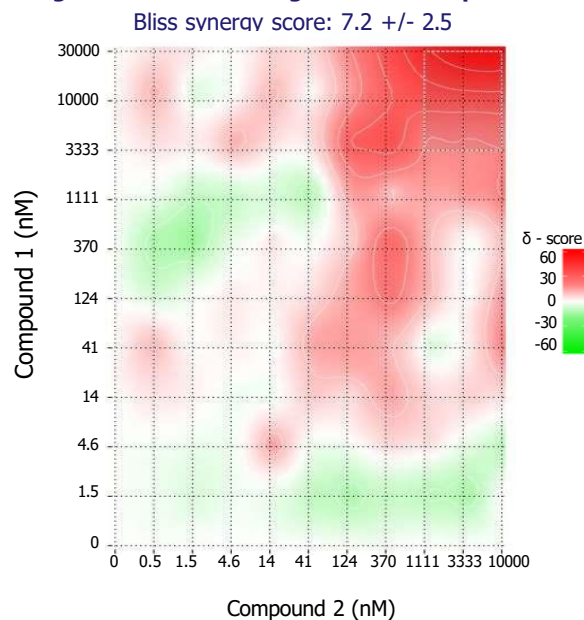
Real-World Insights:

How Our Cancer Cell Panel Drives Smarter Therapeutic Decisions



The plot shows the response of a cancer cell panel to Staurosporine treatment, with a gradient of sensitivity observed across models. This distribution enables comparison of compound potency and supports selection of responsive versus resistant cell lines for downstream studies.

Drug combination testing for Bliss Independence



The heatmap illustrates drug combination testing using the Bliss Independence model, highlighting regions of synergy and antagonism across dose matrices. A positive green Bliss synergy score (7.2 ± 2.5) indicates enhanced combinatorial activity, helping identify dose conditions that maximize therapeutic efficacy.

Precision-Ready Bioinformatics Suite: Turn High-Dimensional Omics Data into Targeted Treatment Strategies

✓ Genomics Analysis

RNA-seq and WES database for over 1,000 cell lines, supporting gene expression, mutation, and fusion analysis

✓ Proteomics Analysis

Proteomics database for cell lines, providing protein expression, and modification information

✓ Drug Response Correlation

Reveal correlations between drug sensitivity and gene expression, mutations, or signaling pathway activation to predict responses

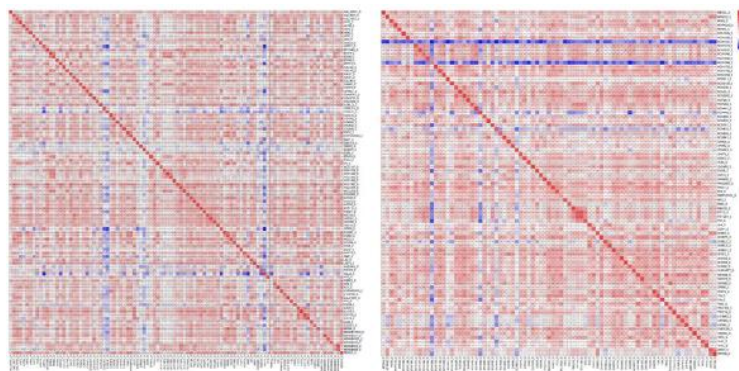
✓ Biomarker Discovery

Identify predictive biomarkers for drug efficacy and resistance based on multi-omics data, supporting precision medicine

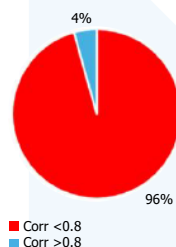
✓ Mechanism of Action Analysis

Elucidate drug mechanisms through pathway enrichment and network analysis, providing a basis for drug optimization

Validated Transcriptomic Consistency



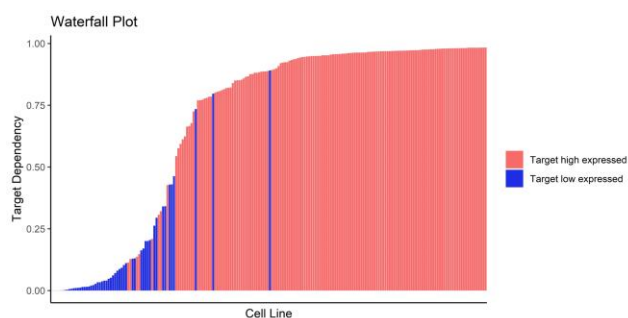
Only 8 out of 183 cell lines (4%) are less correlated (Spearman Correlation < 0.8) with DepMap transcriptome



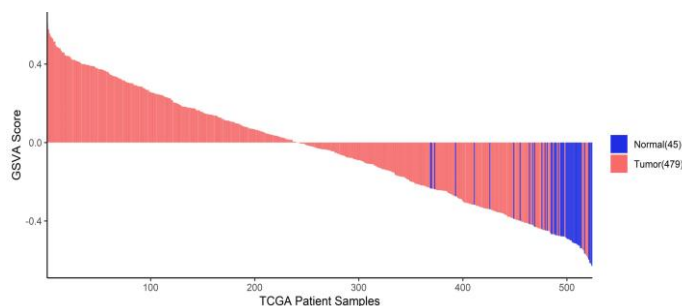
Our in-house cancer cell line dataset shows strong transcriptomic correlation with leading public databases. Over 96% of cell lines demonstrate high concordance, ensuring data reliability, reproducibility, and translational relevance, providing you with insights to move forward with confidence.

Data-Driven Cell Line Selection & Response Prediction

Guidance on cell line selection



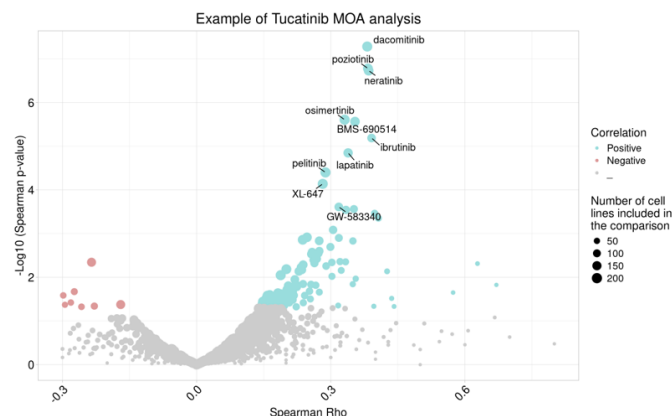
Prediction of sensitivity based on existing dataset



These analyses leverage existing transcriptomic and functional datasets to guide optimal cell line selection and predict drug sensitivity patterns. By integrating expression-based stratification with patient-derived data, they enable more informed experimental design and decision-making.

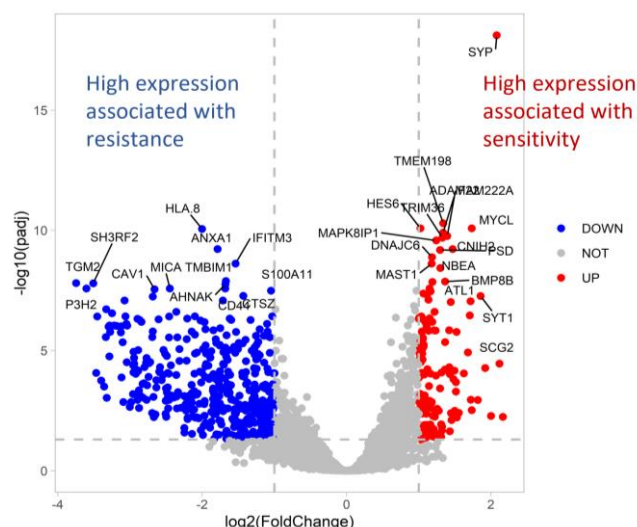
Bioinformatics Case Studies: from Data to Actionable Insights

Mode of Action Analysis



This plot compares the drug sensitivity profile of Tucatinib with hundreds of reference compounds across diverse cancer cell lines. Strong correlations with known HER2 and EGFR inhibitors confirm Tucatinib's mechanism of action and target specificity.

Biomarker Profiling



The figure demonstrates in-house analysis comparing gene expression in tumors that respond to treatment versus those that do not. The data helps identify biomarkers linked to drug sensitivity and resistance, supporting your project with insights required for the development of more targeted and effective cancer therapies.

Large, Diverse Cancer Cell Panel with Scalable Screening Capacity. Pharmaron offers one of the industry's largest cancer cell panel, with 1,000 fully validated cell lines across 30 cancer types. The panel covers key hematologic and solid tumors, encompassing a broad range of cancer types and diversity.



Laboratory
Services



Chemistry,
Manufacturing
and Control



Clinical
Development



Biologics
& CGT

Creating small molecules, biologics, ADCs, and cell and gene therapies against all major therapeutic areas

www.pharmaron.com bd@pharmaron.com

Driven by Science to Help our Partners Succeed

Pharmaron is a global life science service provider that offers a broad spectrum of research, development and manufacturing service capabilities throughout the entire drug discovery, preclinical and clinical development process across multiple therapeutic modalities, including small molecules, biologics and CGT products.

LabIVBCelFlycel1223v12