AssayQuant TECHNOLOGIES INC.

KINOME · PHOSPHATOME PROFILING

KinSight™ Kinome & Phosphatome Profiling

Activity-based selectivity profiling on our proprietary PhosphoSens® continuous assay platform — a full progress curve in every well, not one data point.

564
Protein kinases, wild-type & mutant

50
Phosphatases across 7 families

K_m + 1 mM
ATP options on every kinase panel

10–15 days
Turnaround for a full panel

WHAT EVERY PANEL INCLUDES

Every Enzyme, Every Well, Fully Kinetic

A progress curve in every well
Rates from the linear region of each reaction — not a single read.

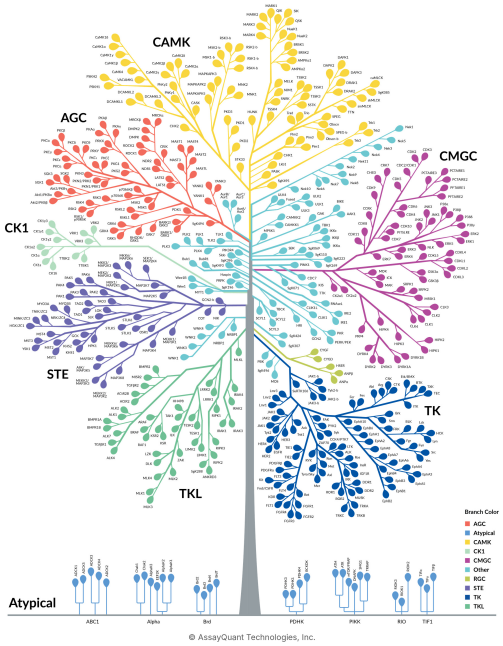
Your ATP condition
ATP K_m for sensitivity, 1 mM for physiological relevance, or both.

Native substrate sequences
Sox sensor peptides built on physiological phosphosites for each enzyme.

Kinetic flags
TDI, lag phase and compound artifacts called out by our enzymologists.

Selectivity maps
Hits plotted on AQT's unique kinome tree, with full data tables and histograms in report.

Duplicate, controlled runs
Every assay in duplicate, with reference-inhibitor controls.



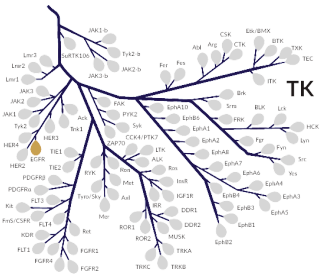
© AssayQuant Technologies, Inc.

SELECTIVITY AT A GLANCE

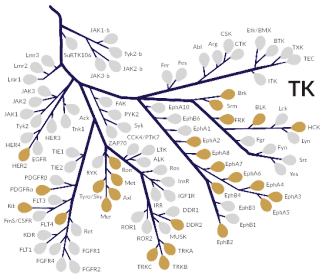
Every Hit, Mapped on the Kinome

Every KinSight™ report plots your results on AssayQuant's kinome tree, so selectivity and off-target liabilities are revealed at a glance. Build your own trees from any dataset with our free Kinome Tree Mapping App.

Tyrosine-kinase branch, 1 mM ATP: gefitinib hits only EGFR; staurosporine hits broadly.



0.15 µM Gefitinib



0.1 µM Staurosporine

HOW A KINSIGHT™ STUDY WORKS

1 Pick a panel
Predefined or custom, at ATP K_m, 1 mM, or both.

2 Send compounds
Tell us your test concentration(s).

3 We run it kinetically
Every assay in duplicate, a full progress curve per well.

4 Data in 10–15 days
% inhibition, kinetic flags, kinome maps, data tables and recommendations.

5 Follow up on hits
IC_{50}, MOA, and TDI (residence time or k_{inact}/K_I).

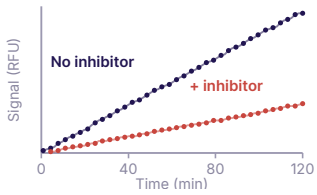
Endpoint Data Estimates How Much. Kinetics Tell You Precisely — and Why!

ASSAYQUANT'S QUARTET

Same Endpoint. Four Different Stories.

Four kinases from one KinSight™ panel each showed 60–65% inhibition based on an endpoint read. Their continuous progress curves — with and without inhibitor — reveal four different mechanisms.

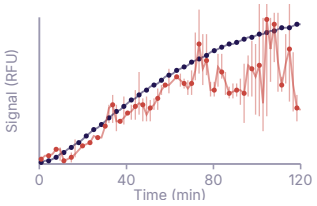
TTBK1 5 nM — **65%** ENDPOINT INH.



LINEAR, PREDICTABLE

Clean, stable rates from 60+ timepoints per replicate — what a well-behaved reaction looks like (assumed, but often not the case).

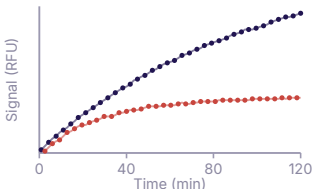
FGFR3 3 nM — **61%** ENDPOINT INH.



NOISE REVEALS AN ARTIFACT

Increasing scatter due to compound insolubility — something a single endpoint could never flag.

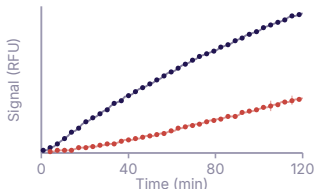
BTK 1 nM — **61%** ENDPOINT INH.



TIME-DEPENDENT

The curve flattens: covalent or slow off-rate. An early TDI flag for interesting MOA.

HCK 2 nM — **60%** ENDPOINT INH.



EXTENSION

A lag before steady state hints at conformational effects, e.g. an inhibitor preferring the inactive form.

● – Inhibitor ● + Inhibitor

KinSight™ data, replotted from assayquant.com

PANEL MENU

Kinase Selectivity Panels

Start from a predefined panel or design your own. Run any kinase panel at ATP K_m, 1 mM, or both.

Panel	Size	Use case
Wild-Type Protein Kinase Panel	**397**	Broad selectivity, safety tox, off-target ID
Complete Protein Kinase Panel	**564**	Comprehensive off-target screening
Tyrosine Kinase (TK) Panel	**83**	RTK / non-RTK selectivity profiling
Cyclin-Dependent Kinase (CDK) Panel	**32**	Cell cycle & oncology selectivity
Mutant Protein Kinase Panel	**163**	Resistance mutation profiling
KiNode Panel (representation from each kinome branch)	**71**	Focused selectivity screening
Kinase Safety (TOX) Panel	**16†**	Early off-target safety liability screening
Custom Panel DESIGN YOUR OWN	**1–150**	Any program-specific target list
Phosphatase Panel	**50**	Ser/Thr, tyrosine & dual-specificity selectivity
Combined Full Kinome & Phosphatome Panel	**614**	Complete coverage to identify liabilities

Kinase panels run on a biweekly schedule; alternative ATP concentrations on request. †TOX panel covers 16 of the 19 kinases recommended by the IQ DruSafe Secondary Pharmacology Working Group (Brennan et al., *Nat Rev Drug Discov*, 2024); the rest are in development.

PHOSPHATOME PANEL

50 phosphatases · 7 families

Ser/Thr, tyrosine and dual-specificity phosphatases, each read with the PhosphoSens® sensor phosphopeptide substrate (13 peptides), including the SHP2 T253M/Q257L mutant.



Scope Your Profiling Panel.

Tell us your target and compound series — we'll recommend the panel, ATP condition and follow-up studies, with direct access to our PhD scientists.

Scan to connect →