

Real-Time Kinase & Phosphatase Activity Assays

PhosphoSens® continuous-detection technology and KinSight™ profiling services — characterize kinase and phosphatase inhibitors with greater precision, faster.

610+

Validated kinase & phosphatase activity assays

NIH Funded

2 Phase II SBIRs
MIT-licensed technology

150+

Peer-reviewed publications

1,100+

Recombinant kinases & phosphatases

THE TECHNOLOGY

PhosphoSens®: Continuous, Real-Time Activity

PhosphoSens® tracks phosphorylation continuously — the full reaction, not one data point. Simple add-and-read on a standard plate reader: no antibodies, coupled enzymes, or wash steps.



True initial rates

No lag or substrate-depletion artifacts — rates from the linear region of every curve.



Slow-acting inhibitors

Detects inhibition that increases over time, which endpoint reads miss.



Physiological conditions

Physiological ATP and substrate sequences; potency that correlates with cell-based data.

ONE CHEMISTRY Two formats, two sample types

FORMAT

● Kinetic (FI)

Real-time kinetics, potency & MOA

FORMAT

● Red (TRF)

Autofluorescence-corrected HTS

SAMPLE

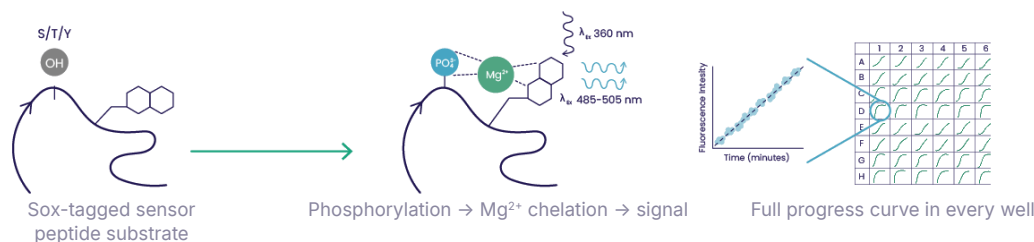
● Recombinant

Purified kinases & phosphatases

SAMPLE

● Lysates

Cells & tissue, native context



HOW WE COMPARE

The Only Platform Pairing Full Kinetics with TRF Screening

Endpoint and binding methods give one snapshot. PhosphoSens® reads continuously and scales to HTS via TRF.

Platform	Measures activity directly	TDI flagged in a single run	Real-time kinetic readout	Detects all inhibitor types	Red-shifted TRF readout
AssayQuant PhosphoSens®	✓	✓	✓	✓	✓
Luminescent assays e.g. Kinase-Glo, ADP-Glo	✗	✗	✗	✓	✗
Radiometric assays e.g. ³³ P/ ³² P filter binding	✓	✗	✗	✓	✗
Mobility shift assays e.g. Caliper EZ Reader	✓	✗	✗	✓	✗
Antibody-based assays e.g. HTRF	✗	✗	✗	✓	✓
Competition binding e.g. KINOMEScan, KdELECT	✗	✗	✗	✗	✗

KinSight™ Services & Catalog Products

Outsource profiling, kinetic characterization, and custom assay development to our team — or run PhosphoSens® in your own lab with ready-to-ship assays and enzymes, as kits or bulk reagents.

SERVICE MENU

From Selectivity Panels to Custom Chemistry



Kinome & Phosphatase Profiling

Selectivity panels across 560+ wild-type and mutant kinases and 50 phosphatases.



Potency Determination

IC₅₀ (or K_i) and EC₅₀ from full dose-response curves.



TDI Characterization

Residence time and k_{inact}/K_i for covalent & irreversible inhibitors.



Custom Peptide Synthesis

Bulk or custom sensor-peptide substrates, made to spec.



Custom Assay Development

New PhosphoSens® sensor peptides for your target — >98% success rate.



Lysate Assay Development

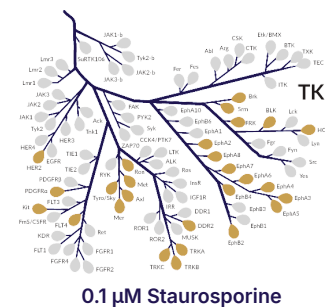
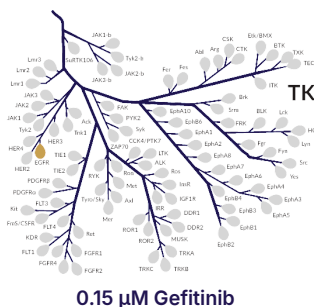
Your cells or tissue, lysate prep, then compound potency screening.

Selectivity at a glance

Every KinSight™ report maps hits onto the kinome tree. Tyrosine-kinase branch, 1 mM ATP: gefitinib hits only EGFR; staurosporine hits broadly.

● ≥70% inhibition ● <70%

⌚ 10–15 day turnaround for a full KinSight™ panel · all assays run in duplicate, in kinetic mode, at 1 mM ATP or ATP K_m



CATALOG PRODUCTS

Self-Serve, Ready to Ship One PhosphoSens® chemistry · order at assayquant.com/order



Recombinant Kinase Assays

575+ validated assays
FI or TRF; evaluation kits or bulk substrate.



Phosphatase Activity Assays

50 validated assays
FI/TRF for inhibitor screening & selectivity.



Lysate Kinase Activity Assays

21 lysate assay targets
Selective sensor-peptide substrates for endogenous kinase activity in native samples.



Active Recombinant Enzymes

1,100+ purified enzymes
High-purity enzymes for custom assay work.

One Platform. Every Stage of Discovery.

Scan to connect →

From first hit to lead optimization — real-time PhosphoSens® data at every step, self-serve or fully outsourced, with direct access to our PhD scientists.

