AssayQuant® TECHNOLOGIES INC.

Contact us for more information:
hello@assayquant.com

Advance your discoveries with our novel and powerful approach for understanding kinase and phosphatase function and to identify the most effective drugs.

PhosphoSens® Technology

Direct-Catalytic

Continuous Fluorescence Intensity (FI) Format

- A continuous assay yields a progress curve in every well
- Quantify the catalytic event of phosphorylation/ dephosphorylation
- Determine the actual reaction rate from many data points in a single well

Red-shift Time-resolved Fluorescence (TRF) Format

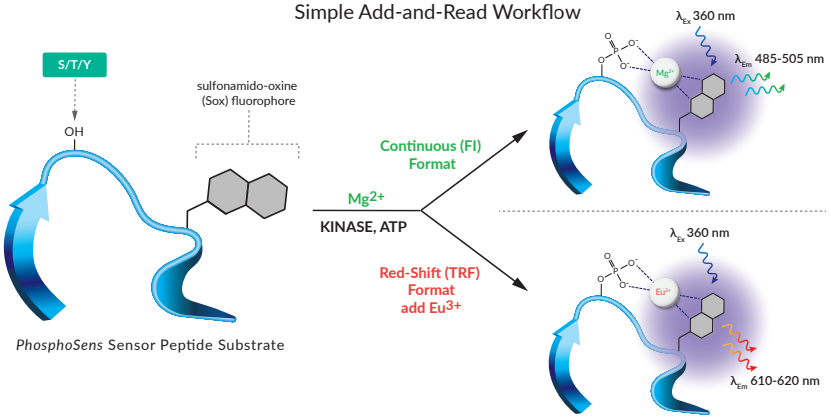
- Corrects for compound autofluorescence and is ideal for HTS or SAR applications.
- Run as an endpoint assay to increase throughput and allow batch processing

Integrated into Catalog Products and Services

- 116 catalog sensor peptides covering 436 unique enzymes and 700+ assays, including mutants, available
- Compound testing and assay development services with rapid turnaround and >98% success rate

PhosphoSens® Technology

Chelation-Enhanced Fluorescence (ChEF)
Simple Add-and-Read Workflow



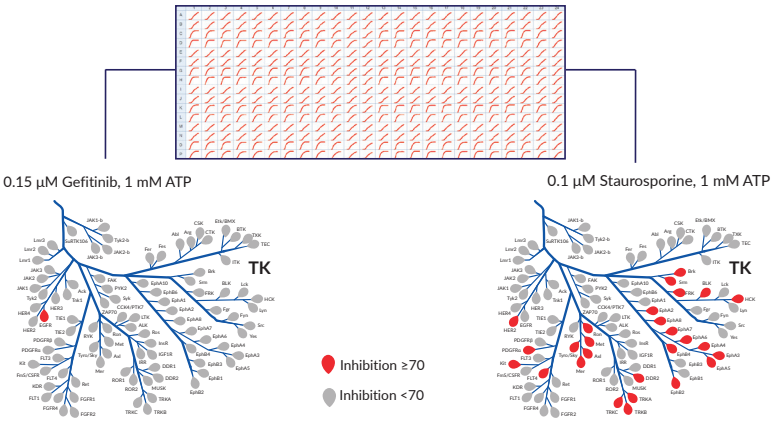
PhosphoSens Sensor Peptide Substrate

KinSight™ Kinome Profiling Services

Selectivity-Kinetic Insight

Determine compound specificity and potential off-targets across the kinome.

- 400+ wildtype kinase panel with a fast turnaround time at [ATP] = K_m, 1mM or both
- Expert in-depth kinetic analysis
- PhosphoSens continuous format yields insight into compound-dependent kinetics and MOA



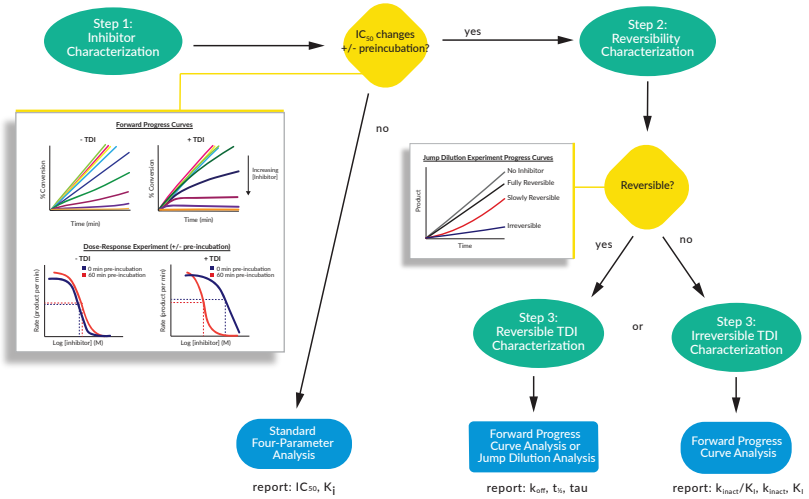
KinSight™ Compound Testing Services

Kinetic Questions-Kinetic Assay

Kinetic questions are best answered by PhosphoSens – a kinetic activity assay. Our compound testing services provide deep characterization of kinase and phosphatase inhibition and activation.

- Potency, IC_{50}, EC_{50}
- Time-Dependent Inhibition Characterization
- MOI, MOA
- Target Activation

KinSight™ Time-Dependent Inhibition Characterization



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Advantages of PhosphoSens Technology

Continuous

Captures the entire reaction in real-time enabling determination of kinetic parameters and detailed characterization of inhibition.

Direct

Detects the actual event of phosphorylation and dephosphorylation rather than a proxy such as a binding event, ATP depletion, or ADP.

Catalytic

PhosphoSens sensor peptides are optimized to bind to the substrate binding site enabling measurement of the true and complete catalytic process.

Small, Minimally Hydrophobic

The Sox fluorophore is a fraction of the size of other fluorophores (comparable to the size of tryptophan) and is minimally hydrophobic to minimize artifacts.

Versatile

Compatible with ATP K_m for affinity and selectivity independent of compound MOI and physiological ATP (1-2mM) for continuity with cell-based assays.

Physiologically Relevant

PhosphoSens sensor peptides are derived from and optimized for interaction with their target kinase or phosphatase.

Novel and Non-Distruptive

Novel in its delivery of rich information in every well while being non-disruptive to your workflow (a simple add-and-read format) and equipment (standard fluorescence microplate reader).

Why Choose a Continuous Assay Format?

Better Data, Better Decisions

A continuous format yields an actual rate determined from dozens of data points contained within the true linear range of a progress curve and is a high confidence measurement compared to an assumed rate. In an endpoint format, the assumption that a pre-determined time point is within a linear range is greatly affected by:

- Lag before the initiation of reaction
- Substrate depletion
- Enzyme instability
- Time-dependent inhibition (TDI)

The accuracy of conclusions drawn from a continuous assay format is not impacted by these factors simply because the continuous format enables identification and quantification of these events.

Information-Rich Data Empowers Discovery

By automating identification and selection of linear regions, we fully utilizate the complete progress curve enabling:

- Determination of multiple IC_{50}s from any linear portion of a progress curve yielding a deep understanding of enzyme and inhibitor activity across the total reaction.
- The comprehensive characterization and quantification of TDI utilizing a simultaneous global fit of multiple progress curves across the dose response.
- The identification and characterization of compound-specific lags which are indicative of specific modes of kinase inhibition (MOI).

Expanded Panel for Kinome Profiling

The powerful convergence of our industry-leading kinase assay technology, our panel of over 400 wildtype kinases, compound management, automation and in-depth kinetic analysis come together to form unsurpassed kinome profiling services enabling rapid determination of kinome-wide compound selectivity and mode of inhibition (MOI) while revealing potential off-target effects.

Our kinome profiling solutions provide a strong correlation with cell-based assays not seen with other platforms:

- Testing at physiological ATP, Mg^{2+}, Mn^{2+} and Ca^{2+} concentrations
- Use of biologically relevant peptide substrate sequences
- Compatibility with the incorporation of activators and cofactors