AssayQuant®
TECHNOLOGIES INC.

Contact us for more information:
hello@assayquant.com

Enzyme and Inhibitor Solutions

Continuous, Direct, and Catalytic Kinase and Phosphatase Activity Assays for Target Biology, Drug Discovery and Development, and Research Across the Preclinical Drug Discovery Continuum.

PhosphoSens™ Catalog Products

A Portfolio Of In Vitro Biochemical Kinase and Phosphatase Activity Assays

AssayQuant Technologies offers a wide range of innovative PhosphoSens sensor peptide substrates. Each substrate is designed to enable researchers to study enzyme activity with high sensitivity and accuracy.

PRODUCT INFORMATION

Enzyme and Inhibitor Solutions

- Target Specific Evaluation Kits (100 assays, 384-well plate)
- Target Specific Discovery Kits (200 assays, 384-well plate)
- Target Specific PhosphoSensors (2500 assays, 384-well plate)

FLUORESCENT INTENSITY (FI) ENZYME ACTIVITY ASSAYS

PhosphoSens-Kinetic

A Continuous Enzyme Activity Assay With Real-Time, Kinetic Insights

- A simple add-and-read workflow that provides a direct measure of kinase activity at the substrate level throughout the entire reaction.
- Sensor Peptides derived from physiological enzyme substrates, fully compatible from low to physiological [mM] ATP concentrations, and optimized with physiological Mg^{++}, Mn^{++}, Ca^{++} ion concentrations.
- Signals that are directly proportional to the amount of phosphorylated product.

TIME RESOLVED FLUORESCENCE (TRF) ENZYME ACTIVITY ASSAYS

PhosphoSens-Red

A Kinetic End Point Enzyme Assay For Quantitative Primary Screening

- Readout designed to avoid signal contamination from fluorescent materials in the reaction mixture.
- Z'-factors >0.7 are routinely obtained.
- Stable fluorescent signal allows batch plate processing without the need for strictly timed incubations.

KinSight™ Compound Testing Services

Kinetic Questions - Kinetic Answers

Detailed characterization of kinase and phosphatase compound mechanism of action and inhibition.

KinSight™ Kinome Profiling Services

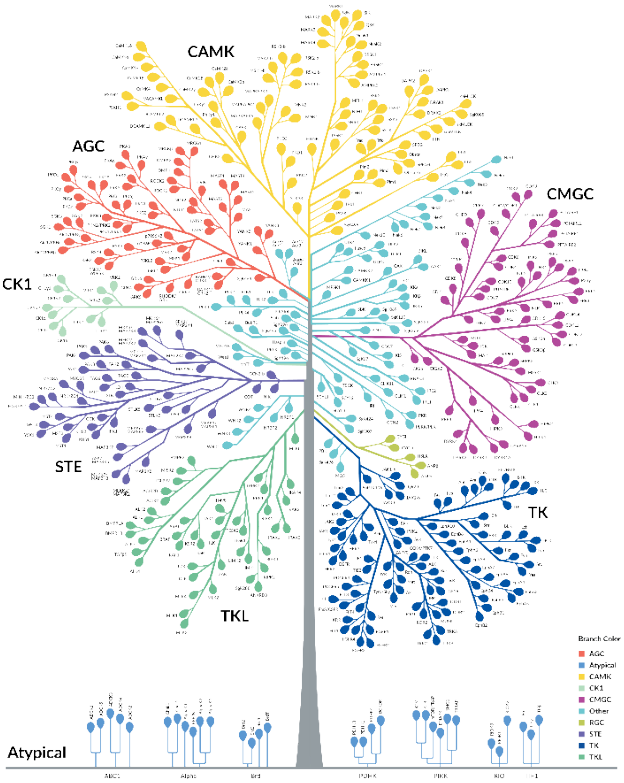
Selectivity & Kinetic Insights

Kinetic insights into selectivity across the kinome and mechanism of action (MOA) for your drug discovery research.

KinSight™ Assay Development Services

Novel Targets – Novel Substrates

Development of new assays to expand coverage and meet the rapidly changing needs of the marketplace.



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AssayQuant®
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Part of Europa Biosite

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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:

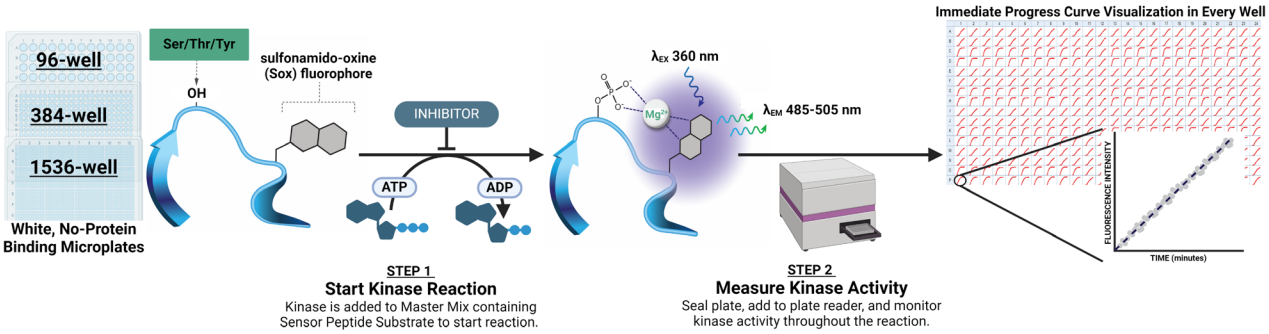
- Lag before the initiation of reaction
- Substrate depletion
- Enzyme instability
- Time-dependent inhibition (TDI)

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 utilize 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).



Why not use the best substrate for your assays, designed for your enzyme?

Scan the QR Code to Match Your Target with Our PhosphoSensors.

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