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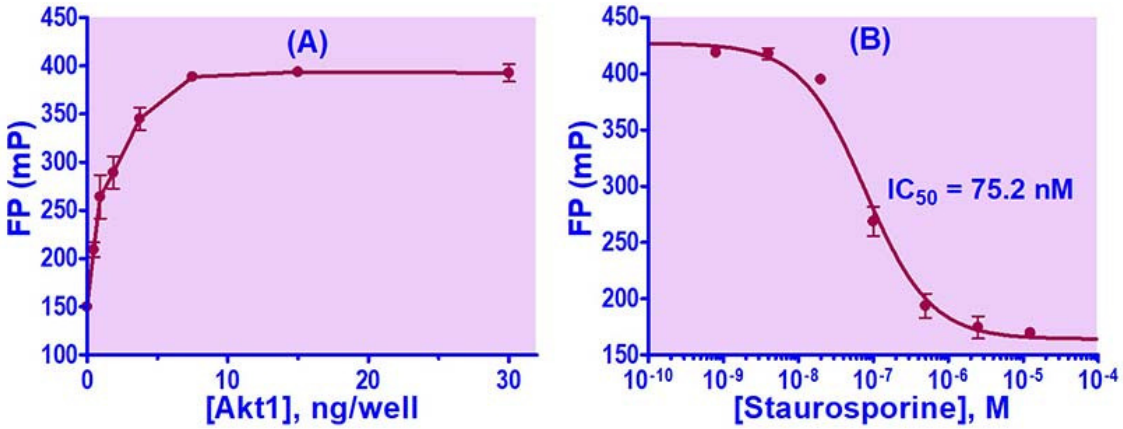
Kinase Inhibitor Screening Service

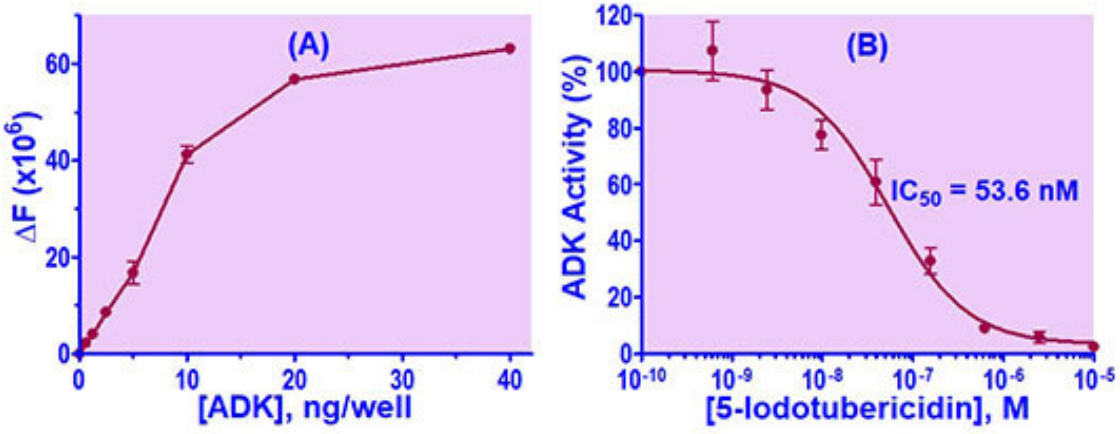
BioAssay Systems has developed and validated a variety of proprietory methods for follow-up study and HTS screening of kinase inhibitors.

1. IMAP Kinase Assay: This fluorescence polarization assay is based on the specific binding of the kinase reaction product, a fluorescent labeled phosphopeptide, to metal-nanoparticles, thus slowing down the rotation of the peptide in solution.



Typical assay optimization steps include enzyme (Figure A) and substrate titrations, interference by dimethyl sulfoxide (DMSO) and Z' factor determination. For screening kinase inhibitors, the inhibitor is usually incubated with the kinase for 10 min prior to addition of ATP and substrate. Z' factors of >0.8 are often observed in these assays.

2. EKIN Kinase Assay: Our proprietary, homogeneous, microplate-based EKIN kinase assay involves incubating the kinase with a single working reagent. During the kinase reaction, ATP is converted to ADP. The produced ADP is enzymatically converted to ATP and pyruvate, which is quantified using a fluorimetric (530nm/590nm) assay method.



Please contact us by email at service@bioassaysys.com, or call us at 1-510-782-9988 x 2 to discuss your kinase screening service needs.

Why BioAssay Systems?

Experience: Our scientists have backgrounds in research, drug discovery, and biotechnology with over 50 years of combined experience developing assay kits and offering assay services. This experience translates into the robust wealth of knowledge we use to provide you with the highest quality of service.
Fast Results: In the fields of health and science, projects are time sensitive. We pride ourselves on our fast turnarounds to keep your studies on schedule. For projects that require the utmost urgency, we offer expedited service options as well.
One-Stop Shop: We develop all of our commercial assay kits and manufacture them all in house. So for any projects using BioAssay Systems assay kits, we always have all the reagents and lab equipment needed. Since we manufacture our own kits, we can easily optimize them to fit specific project requirements. If the assay kit required for your analysis is not available in our catalog, we can also purchase and run assay kits offered by other vendors.

Hear What Our Customers Say About Our Services

Edward T. Wei, Chief Scientific Officer, Orinda Pharma, Inc.
"It is a pleasure working together with BioAssay Systems. I brought samples to their Hayward location and received the results in less than 24 hr. The discussion with Robert Z was courteous, open, and with a depth of knowledge. Robert has a PhD from Stanford. Also, Frank Huang, the CEO, had sufficient scientific curiosity to try out our cleanser and provide feedback! This is beyond the call of customer relations. BioAssay Systems is a company with a lot of expertise and a friendly, responsive approach to problem solving. I will enthusiastically continue to work with them to carry out our research."

Paul Abbyad, Ph.D., Assistant Professor, Santa Clara University
"I would like to show my appreciation to the Bioassay Systems service team. We are developing an assay to measure the change in lactate concentration of single cell samples using fluorescent microscopy. The BioAssay Systems team was quite helpful in assisting us to optimize their fluorescent L-Lactate assay kit for our unique experimental set-up. The BioAssay Systems team is always friendly and knowledgeable. We know that we can rely on them for fast and professional service."

Publications

Rommel Mallaria, Elissa Swearingenb, Wei Liu, Arnold Ow, Stephen W. Young and Shu-Gui Huang* (2003) "A Generic High- throughput Screening Assay for Kinases: Protein Kinase A as an Example". J. Biomol. Screen. 8: 198-204.

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Shu-Gui Huang* (2002) "Development of A High-throughput Screening Assay for Mitochondrial Membrane Potential in Living Cells". J. Biomol. Screen. 7: 383-389.

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Tony Smith, John Chan, Donna Oksenberg, Roman Urfer, Dave Wexler, Arnie Ow, Liping Gao, Alanna McAlorum, and Shu-Gui Huang* (2004). A High-Throughput Turbidometric Assay for Screening Inhibitors of Protein Disulfide Isomerase Activity. J. Biomol. Screen. 9(7): 614-620.

David S. Wexler, Liping Gao, Francisco Anderson, Arnold Ow, Laszlo Nadasdi, Alanna McAlorum, Roman Urfer, and Shu-Gui Huang* (2005). "Linking Solubility and Permeability Assays for Maximum Throughput and Reproducibility". J. Biomol. Screen. 10(4): 383-390.

Shu-Gui Huang (2005) "Progress from HTS to HTL: Current Strategies in Drug Lead Discovery" Review article in Trends in Pharmaceutical Research 1: 5-10.

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