Homogenous Kinase Assay using ATPlite™

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Abstract

ATPlite can be used to measure kinase activity in a homogenous assay format without the need for labeled substrates, labeled enzymes or phosphospecific antibodies. ATPlite is an Adenosine Triphosphate-based chemiluminescence detection system for use with a wide variety of cellular functions, tissue or tissue-like substrates and is superior to current luminescence-based detection systems. Kinase assays utilize the transfer of a phosphate group from ATP to the substrate. ATPlite can significantly increase throughput and can be easily miniaturized and adapted to HTS robotic systems. Due to the simplicity of the ATPlite system, assays can be rapidly developed. ATPlite can be used for homogeneous kinase assays without the need for substrate or antibody labeling. Phosphorylation by a variety of substrates/kinase combinations can be monitored. Assays can be miniaturized for high throughput screening. Assays can be easily adapted to high throughput screening robotic systems. Due to the simplicity of the ATPlite system, assays can be rapidly developed.