CREATIVE BIOMART®
Assay Kit

CYP3A4 Blue Screening Kit

Product Information

Cat	
Kit-0920	
Common Name	
CYP3A4	
Cat.No.	Kit-0920

Description

CYP450 Screening Kits are high-throughput fluorescence-based assays for detection of enzyme-drug interactions and CYP450 inhibition. They provide an optimized method for studying isozyme-specific CYP450-drug interactions, metabolism, and inhibition. CYP450 Screening Kits offer:

- Easy three-step procedure, "mix and read" format, reactions at room temperature or 37°C
- Superior fluorescent properties and kinetics compared to conventional fluorogenic probes
- High signal-to-background ratio, broad dynamic range
- Compatible with multiple assay formats from 96-well to 1536-well

Simple Mix and Read Kit Format

CYP450 Screening Kits include Substrate, Fluorescent Standard, reaction buffer, Regeneration System, NADP+, and CYP450 Plus Reagents. The CYP450 Plus Reagents are microsomes prepared from insect cells expressing a human CYP450 isozyme (CYP3A4 in this case) and human cytochrome-P450 reductase. CYP450 Plus Reagents offer a distinct advantage over human liver microsomes in that only one CYP450 isozyme is expressed, thereby preventing metabolism by other CYP450s.

Unique Reagents for Bright Fluorescent Signals and Low Background

Substrates are blocked dyes that yield minimal fluorescence signal until cleaved or hydroxylated. Oxidation at either of two potential sites releases the highly fluorescent product. They have superior fluorescence, solubility, and kinetic properties compared to conventional fluorogenic probes. This results in higher sensitivity, greater signal-to-noise ratio, and better assay reproducibility. BOMCC Substrate is the substrate included in this particular kit. This substrate yields a product that emits a blue fluorescence.

Flexible Assay Formats for Optimized Results

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The sensitivity of the CYP450 assays allows detection of weak inhibitors and miniaturization to as little as 2 µl per reaction. Assays may be set up in kinetic mode or in end-point mode to facilitate multi-plate screening. Assays may be performed at room temperature or 37°C.

Applications: high-throughput screening of enzyme-drug interactions, compound profiling for drug inhibition of cytochrome P450 isozymes, generation of predictive SAR models to guide compound acquisition
For Research Use Only. Not for any animal or human therapeutic or diagnostic use.

Storage

CYP450 Screening kits include CYP450 Fluorogenic substrates, CYP450 reagents, fluorescent standards, and an NADPH-regeneration system. CYP450 Fluorogenic substrates are also available separately. Store reaction buffers at +4°C or room temperature. Store BACULOSOMES, the NADPH-regeneration system, and NADP+ at -80°C. Store the substrates and standards at +4°C, protected from light. (For long-term storage, resuspend in organic solvent and keep at -20°C.)

Shipping

Dry Ice

Size

300 assays

Materials Required but Not Supplied

Microplate Reader

Detection method Fluorescent

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