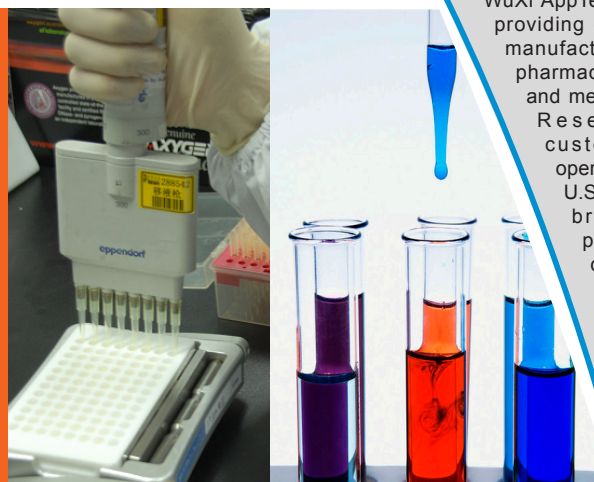


# ADME *In Vitro* Studies

DMPK/ADMET division at WuXi AppTec offers a comprehensive series of drug metabolism and pharmacokinetic studies in support of drug discovery, preclinical and clinical development. With state-of-art instrumentation and data management system, we provide fast turnaround, high quality data at competitive prices. Our clients have direct access to WuXi technical staff and receive regularly scheduled updates and prompt feedback to their inquiries.



WuXi AppTec is a global leader in providing discovery, testing and manufacturing services for the pharmaceutical, biotechnology and medical device industries. Research-driven and customer-focused, with operations in China and the U.S., WuXi AppTec offers a broad and integrated portfolio of services designed to assist our customers with cost-effective and efficient outsourcing solutions.

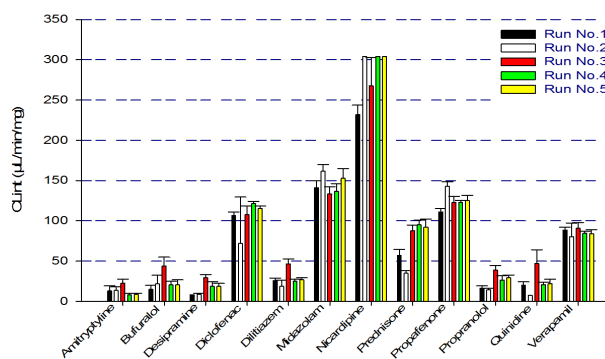
WX  
LISTED  
NYSE

## Investigational New Drug (IND) Enabling ADME Studies

### ➤ Drug-Drug Interaction

#### CYP Inhibition

- 7 isozymes/10 substrates
- IC<sub>50</sub> determination



#### Protein Binding

- Equilibrium dialysis
- Radioactive or nonradioactive

## High Throughput Screening (HTS) Discovery ADME Studies

### ➤ *In Vitro* Metabolic Stability

- Microsomes
- S9 fraction
- Hepatocytes
- Caco-2

### ➤ Drug-Drug Interaction

- Cocktail 5-in-1 CYP Inhibition
- PXR-luciferase reporter gene assay for 3A4 induction

### ➤ Physicochemical Properties

- SGF (Simulated Gastric Fluid) stability
- SIF (Simulated Intestinal Fluid) stability
- Kinetic solubility
- Log D (HTS, 96 format)

- Time dependent inhibition (K<sub>i</sub>, K<sub>I</sub> & K<sub>inact</sub>)
- Cynomolgus monkey model support CYP induction and inhibition

#### CYP Induction

- mRNA expression
- Enzyme activity assay

#### CYP Phenotyping

- Chemical Inhibitors
- Recombinant P450 (Supersomes)
- Phenotyping Kit

For more information on WuXi AppTec's services please contact:

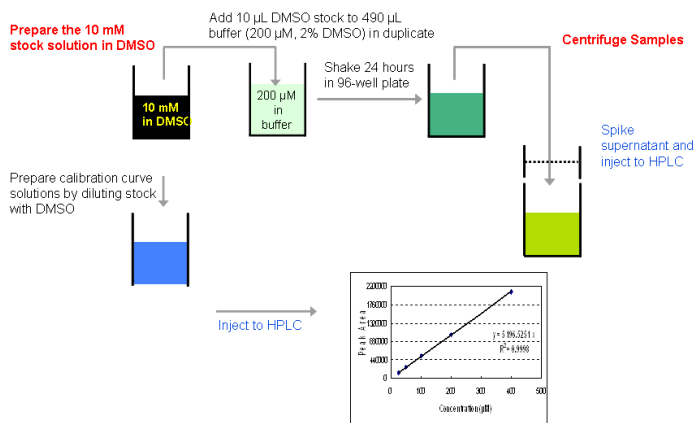
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## Protein Binding

Equilibrium dialysis/Ultrafiltration (96 well)

- Plasma
- Serum
- Specific proteins
- Brain homogenates

Blood/Plasma partition

## Compound Permeability

PAMPA

MDCK

MDCK-MDR1

## Mass balance in rodents

## Synthesis of authentic standard of metabolites

Metabolite ID

Synthesis

## Other Services

### Drug Transporters

P-gp, BCRP and MRP2

HEK 293-OATs/-OATPs/-NTCP/-BSEP

Calcein-AM Inhibition Assay

Hepatocytes

- Drug transporter uptake and efflux study
- Drug-drug transporter interaction and interplay study
- Hepatotoxicity study

### Rat/Mouse in situ perfusion assay

Ileum

Brain

### Rapid Turnaround

Five working days



## Biotransformation

### Metabolite Profiling, Characterization & structure elucidation

*In vitro* (microsomes & hepatocyte)

*In vivo* (bile duct cannulated animals)

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