



# Know Compound's ADME Properties with Innovative In Vitro ADME/PK Screening

Studying the ADME properties (i.e., absorption, distribution, metabolism and excretion) of a drug candidate gives investigators critical safety and efficacy data needed when applying for the FDA IND (Investigational New Drug).

ADME assays give data on how a drug behaves in the human body. ADME assays work by running an analysis on how a compound is absorbed into the body, how the compound is distributed, how a compound is metabolized overtime, and how the compound is finally removed from the human body. In vitro ADME accomplishes these goals through a variety of regulatory accepted *in vitro* (in glass), assays.

It is estimated that around 50% of drug candidates fail because of unsatisfactory efficacy. It has become clear that in addition to standard cytotoxicity assays (ATP/ LDH), in vitro ADME studies play an important role in the success of a drug candidate. For this reason, ADME studies are performed early in the drug discovery process to rule out potential adverse effects related to ADME parameters.

Insufficient knowledge of the ADME of a compound can be disastrous to otherwise good drug efficacy; thus, choosing the most appropriate ADME studies is vital.

When selecting your *in vitro* ADME Studies the FDA does offer recommendations. These are studies that are required for the submission of the FDA IND. A good In vitro CRO should be able to walk you through these requirements and recommend the proper studies to meet the requirements of the FDA.

With expert guidance, running in vitro ADME studies will not only give organizations needed data for regulatory IND submissions, but also provide investigators with insight into potential liabilities of a test compound.

**When seeking to screen compounds for ADME parameters here are a few key assays to consider:**

- Caco-2 Permeability
- Metabolic Stability
- CYP Induction
- CYP Inhibition
- Plasma Protein Binding
- Blood Partitioning
- Evaluation of Transporter Interactions

### **Quality In vitro ADME screenings from IONTOX**

IONTOX follows Good In vitro Method Practices (GIVIMP). IONTOX in vitro ADME services include Caco-2 permeability, metabolic stability, CYP induction, CYP inhibition, plasma protein binding, blood partitioning and evaluation of transporter interactions. We offer over a combined 35 years of experience in drug discovery and all clients have access to an industry learning Dilopmant of the American Board of Toxicology, (D.A.B.T).

### **Begin your in vitro ADME research with a reliable CRO – IONTOX**

For more information regarding In vitro ADME from IONTOX, visit <https://www.iontox.com/in-vitro-adme-pk-testing/> now.