



Sovicell's Products and Services

Sovicell offers state-of-the-art drug development products and services that enable early prediction of efficacy and safety for drug candidates. Our TRANSIL[®] technology platform underpins our numerous assays, and comprises a bead based system that mimics certain physiological conditions of the human body allowing the membrane permeability and protein binding of drug candidates to be easily and reproducibly assessed. Our physiologically-relevant hepatocytes can provide data on metabolic parameters and measurements of hepatotoxicity. These can be used on their own or to further complement in vitro physical chemistry data from our TRANSIL[®] product range.

Sovicell (previously known as Nimbus Biotechnology) was founded in 1994 as a spin-off from the University of Munich (LMU) with a mission to provide reliable products in order to support our customers in their efforts to improve human health. Since then, major pharmaceutical companies have adopted our technology and we are increasingly developing more products to meet our customers' needs. The most recent additions to our product range include TRANSIL[®] Brain Absorption, a true biological membrane-based blood-to-brain absorption model and human cryopreserved hepatocytes.

1. TRANSIL[®] Intestinal Absorption

The TRANSIL[®] Intestinal Absorption kit assesses a drug candidate's ability to cross the intestinal epithelium and thereby evaluates its membrane affinity. Membrane affinity is directly related to permeation and, due to the selection of membrane type, to the intestinal absorption of a drug. The TRANSIL[®] Intestinal Absorption assay kit is ready-to-use requiring an incubation time of only two minutes after the addition of a drug candidate and subsequent quantification.

2. TRANSIL[®] Brain Absorption

Development of CNS drugs requires knowledge of a lead compound's ability to cross the blood-brain barrier and, more frequently, this knowledge is also required for other therapies to predict side effects. The TRANSIL[®] Brain Absorption kit is designed to assess the ability of a drug candidate to cross the blood brain barrier. The kit directly assesses the drug candidate's affinity for the brain membrane. Membrane affinity is directly related to permeation and blood-to-brain absorption of a drug. The TRANSIL[®] Brain Absorption assay kit is available in an off-the-shelf and ready-to-use format.

3. TRANSIL® Albumin Binding

The TRANSIL® Albumin Binding kits are designed to assess the tendency of a drug candidate to bind to serum albumin and thus indicate how freely available it is in the blood. The kits are available with human serum albumin (HSA) and rat serum albumin (RSA). Both HSA and RSA Binding Kits are ready-to-use. They require only an incubation time of two minutes after the addition of a drug candidate, and subsequent quantification.

4. TRANSIL® AGP Binding

The TRANSIL® AGP Binding kit is designed to assess the tendency of a drug candidate to bind to human α_1 -acid glycoprotein. Binding data from this assay yield clearly defined and highly reliable estimates of full plasma protein binding when used in combination with our TRANSIL® HSA Binding kit. The TRANSIL® AGP Binding kit is ready-to-use and requires only an incubation time of two minutes after the addition of a drug candidate, and subsequent quantification.

5. Cryopreserved Human Hepatocytes

Hepatocytes are provided to assess the metabolic stability of a drug candidate, to profile enzymes involved in its metabolism, to profile metabolite concentrations and to assess CYP inhibition and induction. We provide cryopreserved human hepatocytes both for use in suspension cultures and adherent cultures that readily attach to collagen surfaces. Our hepatocytes are characterized for all enzyme activities relevant to drug metabolism (c.f. table 1). We also provide protein content, viability, donor sex, and health status.

Table 1: List of CYP marker reactions

Cytochrome P450	Assay Reaction
1A1/1A2	7-ethoxyresorufin O-deethylation
2A6	Coumarin 7-hydroxylation
2B6	Bupropion hydroxylation
2C8	Paclitaxel 6 α -hydroxylation
2C9	Diclofenac 4'-hydroxylation
2C19	S-mephenytoin 4'-hydroxylation
2D6	Bufuralol hydroxylation
2E1	Chloroazone 6-hydroxylation
3A4	Testosterone 6 β -hydroxylation

6. Services

If your resources are limited then we can undertake research using our products on your behalf. Please contact us at Tel +49 341 520 44 0 to discuss how we can help you.