

Creative Bioarray Develops In Vitro Permeability and Transporters to Support Drug Research

NEW YORK CITY, NY, UNITED STATES, October 31, 2024 /EINPresswire.com/ -- With over 10 years of experience and 100 customers in more than 20 countries around the world, Creative Bioarray has become one of the leading providers of cell-based ready-to-use services and products. Leveraging our expertise in specific clearance, Creative Bioarray generates quality products following Regulatory Standards and aims to become one-stop provider for all in vitro DMPK needs. Recently, Creative Bioarray announced the release of its In Vitro Permeability and Transporters to evaluate drug permeability and predict drug absorption and distribution.

Predicting drug absorption is an important goal in drug design, optimization, and selection. The permeability of a drug across biological membranes is a key factor in drug absorption across the gastrointestinal mucosa and drug distribution to tissues via the blood circulation. Poor permeability results in either poor absorption (for oral drugs) or poor systemic distribution. The permeability of a drug across a membrane depends on both passive diffusion and active transport of the drug.

Creative Bioarray offers a variety of [in vitro permeability and transporter assays](#), including the Caco-2 permeability assay, the MDCK permeability assay, the parallel artificial membrane permeability assay (PAMPA), and a panel of transporter assays for several of the most relevant transporters, such as canine P-glycoprotein (P-gp), BCRP, BSEP, OAT1, OAT3, OATP1B1, OATP1B3, OCT1, and OCT2.

Creative Bioarray's cell permeability assays can measure the permeability of Caco-2 monolayers, primarily to assess intestinal absorption, and also provide a clear cell permeability assay using MDCKII-MDR1 monolayers to assess potential blood-brain barrier permeability. Creative Bioarray's flexible assay design allows you to measure unidirectional or bidirectional permeability, and inhibitors can be added to assess the impact of transporters on the permeability of candidate drugs.

Creative Bioarray provides [in vitro ADME screening](#) services to determine drug permeability using a highly automated approach. The MDR1-MDCK permeability assay is a valuable tool for identifying and characterizing P-gp substrates and inhibitors, which can help understand the mechanisms of drug efflux and highlight potential problems with drug permeability at an early stage. Compared to Caco-2 cells, MDCK cells form cell monolayers with tight junctions more

quickly and have lower expression and metabolic activity of transporters.

“Besides, we have developed expertise in PAMPA. By working with a variety of customers, we can perfectly meet your project requirements and budgets.” said Hannah Cole, the marketing director of Creative Bioarray, she also added, “We also offer assays for a variety of transporters, including but not limited to P-gp, BCRP, BSEP, OAT1, OAT3, OATP1B1, OATP1B3, OCT1, and OCT2.”

About Creative Bioarray

Creative Bioarray has experts with extensive experience in drug development. We are committed to providing our customers with complete assays and high-quality data for a worry-free drug screening and optimization experience. We are able to customize assays to meet your needs.

Hannah Cole

Creative Bioarray

+1 631-386-8241

[email us here](#)

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