SEAMLESSBIO × CELL4PHARMA

ABC Transporter Vesicle Kits & ciPTEC Renal Cell Lines

High Performance — your trusted partner for certified sera, plasma & reagents. SeamlessBio now distributes the complete Cell4Pharma portfolio of human ABC transporter vesicle kits and validated ciPTEC proximal tubule cell lines — engineered for FDA/EMA-aligned DDI studies, nephrotoxicity prediction, and regulatory-grade DMPK workflows. EU cold-chain stock. Full documentation. Technical support in German and English.

SeamlessBio | Passau, Germany | +49 851 37932226 | info@seamlessbio.de | www.seamlessbio.de | shop.seamlessbio.de

EU Cold-Chain Delivery

DACH & Europe — same-day dispatch from EU warehouse

Lot-Certified Quality

Guaranteed ATP/AMP ratios + lot-specific QC reports per kit

Regulatory Alignment

FDA/EMA DDI guideline compliant — IND/NDA ready

PAGE 1 — ABC TRANSPORTERS

New: ABC Transporter Vesicle Kits

Human HEK293-Derived | Ready-to-Use | FDA/EMA DDI-Compliant. SeamlessBio distributes the complete Cell4Pharma portfolio of human ABC transporter vesicle kits. Each kit contains inside-out membrane vesicles from HEK293 cells expressing a single human efflux transporter — with guaranteed ATP/AMP transport ratios, matched control vesicles, and all assay reagents for 100 reactions. Compatible with radiolabel, fluorescence, and LC-MS/MS detection. Shipped cold-chain from EU stock.

Complete Kit Portfolio

Kit	Gene	ATP/AMP Ratio	Regulatory / Application
Human BCRP Vesicle Kit	ABCG2	>10	FDA/EMA Tier 1
Human Pgp Vesicle Kit	ABCB1	>5	FDA/EMA Tier 1
Human Pgp + FluoPgp Kit	ABCB1	>5	Fluorescence-ready
Human BSEP Vesicle Kit	ABCB11	>10	Cholestasis safety
Human MRP1 Vesicle Kit	ABCC1	>5	Multidrug resistance
Human MRP2 Vesicle Kit	ABCC2	>20	Biliary excretion
Human MRP3 Vesicle Kit	ABCC3	>5	Hepatic efflux
Human MRP4 Vesicle Kit	ABCC4	>5	Renal & hepatic
Human MRP5 Vesicle Kit	ABCC5	>5	Broad tissue distribution
Human MRP8 Vesicle Kit	ABCC11	>5	Brain, breast, lung
Human Control Vesicle Kit	HEK293 empty vector	—	Negative control

Key Applications

DDI Victim & Perpetrator Assessment

Substrate identification and IC_{50} determination for IND/NDA regulatory submissions

BSEP Inhibition & Cholestasis Risk

Hepatotoxicity and cholestasis safety profiling for hepatic efflux transporters

CNS & Oncology Profiling

Blood-brain barrier drug exclusion studies and MDR profiling in oncology compounds

Oral Bioavailability

Intestinal efflux characterisation for absorption and bioavailability prediction

SeamlessBio Advantages

- EU warehouse — cold-chain delivery across DACH & Europe
- Guaranteed ATP/AMP ratio per lot — assay-ready from day 1
- Full documentation: data sheet + lot-specific QC report included
- Flexible supply: single kit to full project volume
- Batch reservation available for long-running studies
- Technical support in German and English

PAGE 2 — RENAL CELL LINES

New: ciPTEC Human Renal Cell Lines

Drug-Induced Kidney Injury Prediction | In Vitro | FDA/EMA Aligned. Standard HK-2 cells lack OAT1, OAT3, and OCT2 — the transporters responsible for the majority of drug-induced kidney injury. ciPTEC maintains stable, functional expression of all major renal drug transporters for 20+ passages, making it the only validated human proximal tubule cell line for comprehensive nephrotoxicity prediction. Validated against 62 compounds in collaboration with AstraZeneca, with results published in *Archives of Toxicology* (2018).

19%

Phase III Failures

of Phase III drug failures are caused by nephrotoxicity

2%

Detected Preclinically

detected preclinically using standard HK-2 models

90+

Publications

peer-reviewed publications validating ciPTEC models

100%

OAT1 Specificity

specificity in OAT1-overexpressing model — AstraZeneca validated

The Critical Gap: Standard HK-2 cells lack OAT1, OAT3, and OCT2 — the transporters responsible for the majority of drug-induced kidney injury. ciPTEC is the only validated human proximal tubule cell line maintaining stable, functional expression of all major renal drug transporters for **20+ passages**.

Three ciPTEC Models — Choose Your Transporter Profile

The ciPTEC portfolio offers three complementary models designed to cover the full spectrum of renal drug transport. Whether your study requires general nephrotoxicity screening, organic anion DDI assessment, or complete basolateral anion transport coverage, there is a validated ciPTEC model aligned to your experimental needs and regulatory submission requirements.

ciPTEC Parental

Key Transporters: OCT2, P-gp, MRP2, MRP4, BCRP, Megalin

Primary Use: General nephrotoxicity & viability screening

Sensitivity: 63%

ciPTEC-OAT1 ★ Recommended

Key Transporters: + OAT1 (SLC22A6), MATE1/2

Primary Use: Organic anion DDI, antiviral nephrotoxicity

Sensitivity: 75–100%*

ciPTEC-OAT3

Key Transporters: + OAT3 (SLC22A8)

Primary Use: Complete basolateral anion transport

Sensitivity: 88%*

★ Recommended model. *OAT1-overexpressing model validated on 62 compounds with AstraZeneca: 75% sensitivity, 100% specificity (*Archives of Toxicology*, 2018). With OAT1 overexpression: up to 100% sensitivity.

ciPTEC vs. Alternative Cell Lines

Feature	ciPTEC	HK-2	RPTEC/TERT1	Verdict
OAT1 functional	✓ Stable	× Absent	~ Inconsistent	**ciPTEC wins**
OAT3 functional	✓ Stable	× Absent	~ Inconsistent	**ciPTEC wins**
OCT2 functional	✓ Yes	× Low	✓ Yes	**ciPTEC = RPTEC**
FDA/EMA DDI aligned	✓ Yes	× No	~ Partial	**ciPTEC wins**
Stable >20 passages	✓ Yes	✓ Yes	✓ Yes	All stable
Peer-reviewed publications	90+	Many	~30	**ciPTEC leads**

Key Applications & Complete Supply Solution

ciPTEC Key Applications

DIKI Prediction

Drug-induced kidney injury prediction in early discovery — reduce late-stage attrition caused by renal toxicity

Transporter DDI Studies

OAT1/OAT3 substrate and inhibitor DDI studies; OCT2 organic cation transporter DDI profiling for regulatory submissions

Antiviral & Chemotherapy Safety

Antiviral nephrotoxicity screening (tenofovir, cidofovir) and cisplatin/chemotherapy safety profiling

Advanced 3D Models

3D kidney-on-a-chip compatible (OrganoPlate® validated) and nephrotoxicity biomarker quantification (KIM-1, NGAL, HO-1)

⚠️ Important Supplementation Note

ciPTEC cells require Human AB Serum for supplementation. SeamlessBio supplies GMP-documented Human Serum Type AB from EU/US-certified donors — from the same source.

One supplier. One invoice. Complete documentation. No fragmented supply chain, no sourcing risk for your long-running studies.

Order & Contact

Pricing & Availability

On request — single kit to full project supply. Batch reservation available.

Technical Support

German & English — direct scientist-to-scientist communication

Documentation

Data sheet + lot-specific QC report supplied with every order

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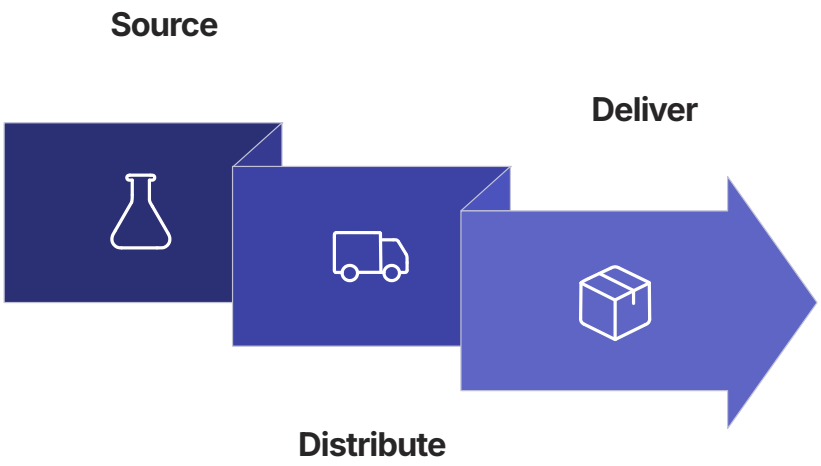

SeamlessBio bridges Cell4Pharma's validated manufacturing with your laboratory — ensuring every kit arrives assay-ready, fully documented, and traceable from production lot to your bench.