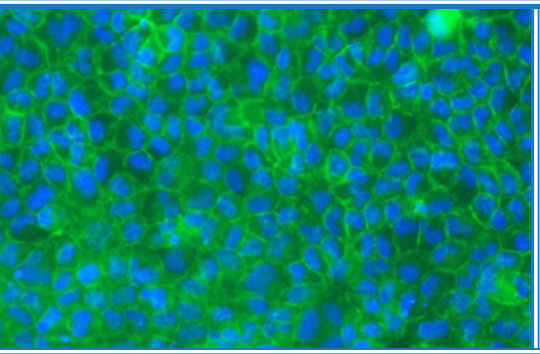
ReadyCell
EASING YOUR SCREENING

ReadyCell introduces PreadyPort-WT

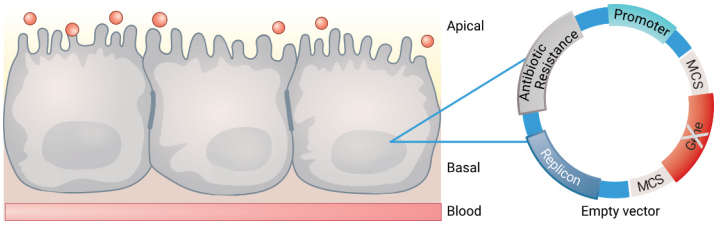


PreadyPort-WT is a cell-based assay that contains differentiated Mardin Darby Canine Kidney Type II (MDCKII) cell monolayers transfected with an empty plasmid vector. This cellular model can be used as a negative control for active drug transport studies in preclinical testing when performed concurrently with the PreadyPort-MDR1 and/or PreadyPort-BCRP kits and as an epithelial barrier. PreadyPort WT is delivered at room temperature in a semisolid shipping medium in Transwell-96 insert plates.

PreadyPort-WT applications

The *MDCKII* cells expressing an empty plasmid vector allows for:

- Evaluation of the vector/backbone's effects in active drug transport studies attributable to cells overexpressing the MDR1 (PreadyPort-MDR1) and/or BCRP (PreadyPort-BCRP) efflux transporters
- Assaying drug permeability by passive diffusion through a physiologically relevant barrier



Mardin Darby Canine Kidney Type II (MDCKII) cell clone expressing the empty vector.

Four simple steps to use PreadyPort-WT

#1 Receive	#2 Liquefy	#3 Apply	#4 Assay
Ready-to-use Cell Barrier	Liquefying of Solid Shipping Medium	Incubation with Test Compound	Assessment of Permeability/Transport End Point

- Available on demand, adaptive to project schedule
- Worldwide room temperature shipments thanks to proprietary technology
- Ready-to-use format, reducing costs and easing the assay procedure
- Highest quality for a perfect replicability
- Adaptable to automation
- Specialized support from an experienced team

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Experimental Data

Apparent Permeability (P_{app}) values and efflux ratios (ER) for the MDR1 substrates, digoxin and quinidine and the BCRP substrates, prazosin and dantrolene, in MDCKII cells transfected with the empty plasmid vector. Assays were performed after **PreadyPort-WT 96** was exposed for 4 days to the shipping medium and a subsequent 72 h culture in fresh medium.
These data are the result of three independent experiments.

■ **P_{app} A-B** ■ **P_{app} B-A**

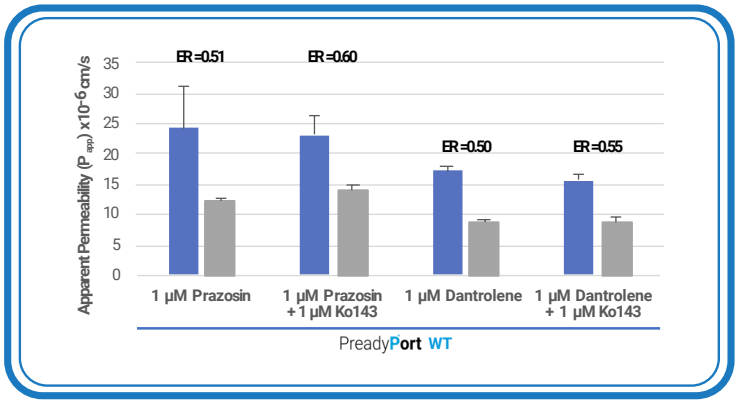

Figure 1. Prazosin and dantrolene secretory transport in the absence/presence of the BCRP inhibitor, Ko143.

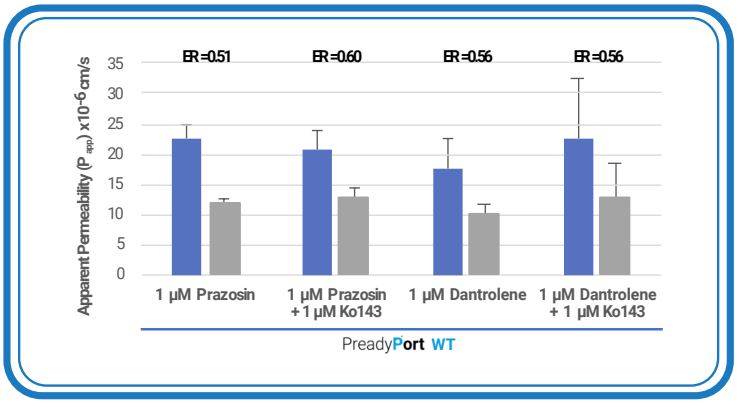

Figure 2. Prazosin and dantrolene secretory transport in the absence/presence of the BCRP inhibitor, Ko143 (batch-to-batch variation).

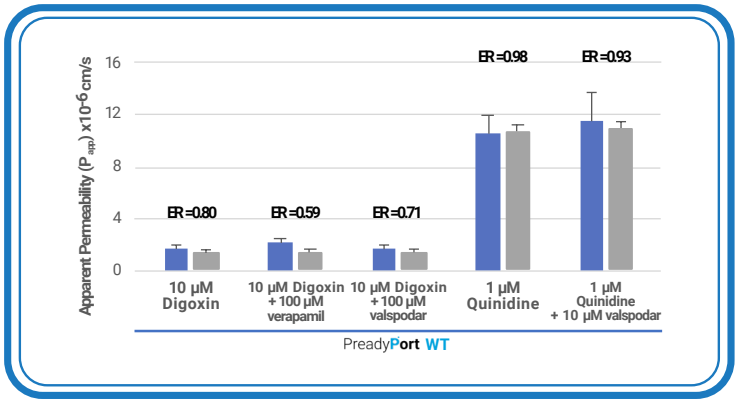

Figure 3. Digoxin and quinidine secretory transport in the absence/presence of the two MDR1 inhibitors, verapamil and valspodar.

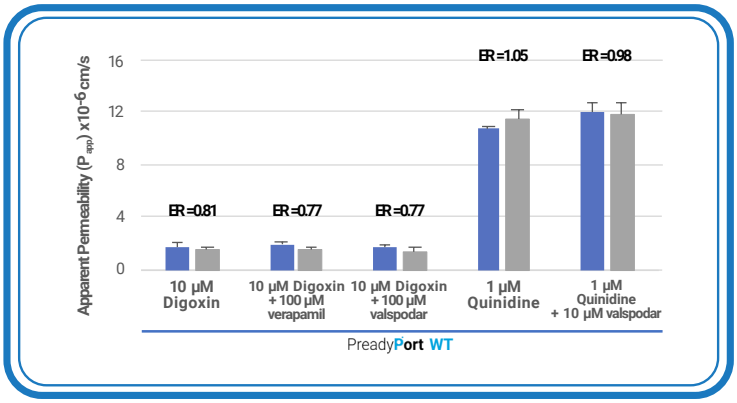

Figure 4. Digoxin and quinidine secretory transport in the absence/presence of the two MDR1 inhibitors, verapamil and valspodar (batch-to-batch variation).

Quality Controls

Pre- and post-assay quality assessments (TEER and Lucifer Yellow (LY), respectively) were performed to evaluate the cell barrier integrity of PreadyPort. TEER measurements were obtained 72 h after cell recovery from the shipping medium, while LY paracellular absorption was carried out after the sample permeability test.

■ **PreadyPort WT** ■ **LY Permeability** ● **LY Flux**

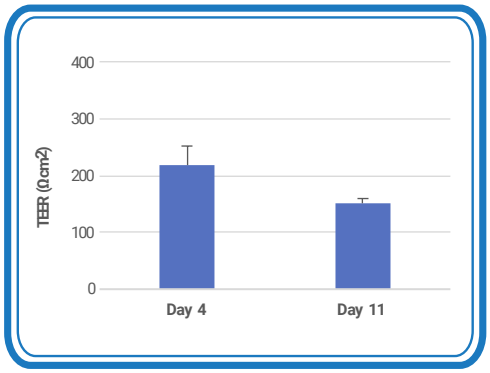

Figure 5. Changes in membrane integrity throughout the PreadyPort manufacturing process. *These data are the result of 3 different batches.*

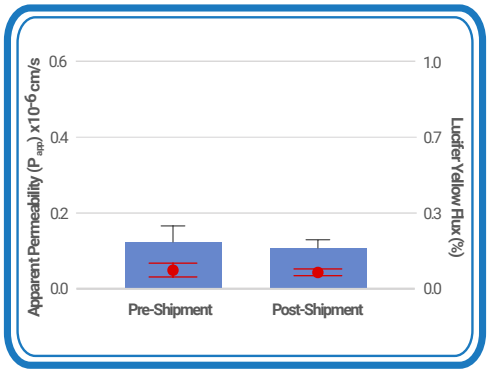

Figure 6. Lucifer Yellow paracellular permeability (P_{app}) values during PreadyPort shipment. *These data are the result of 3 different batches.*

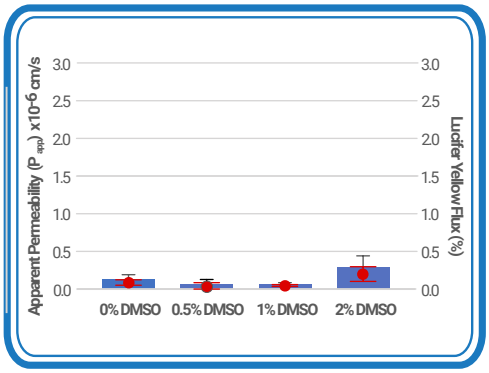

Figure 7. Effect of DMSO on barrier integrity of PreadyPort cell monolayers. *These data refer to a single experiment in triplicates.*

WT - Regulatory Requirements

Recommendations for identifying WT substrates and inhibitors are outlined by the 2020 FDA Guideline and recommended for consideration according to the 2012 EMA Guideline.