

CacoReady 96-wells

Intestinal Permeability and Drug-Transporter Interactions

Experimental Data

Apparent Permeability (P_{app}) values and Efflux Ratios (ER) for low, medium and high permeability reference compounds and Pgp and BCRP substrates. Assays were performed after exposing **CacoReady** to the shipping medium during a 4-day period and a subsequent 72-hr recovery in fresh culture medium.

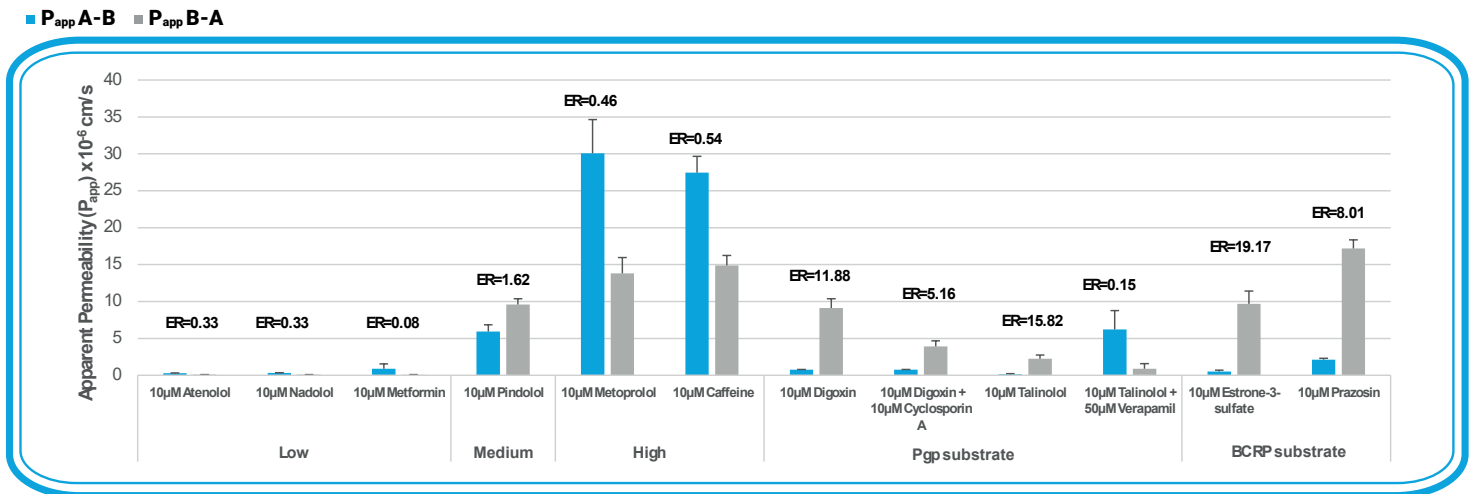


Figure 1. Reference compound's intestinal permeability.

CacoReady reproducibility among batches

Batch-to-batch variation was evaluated with low (atenolol), high (metoprolol), Pgp (digoxin and quinidine) and BCRP (prazosin) reference compounds. These data are the result of 3 independent experiments.

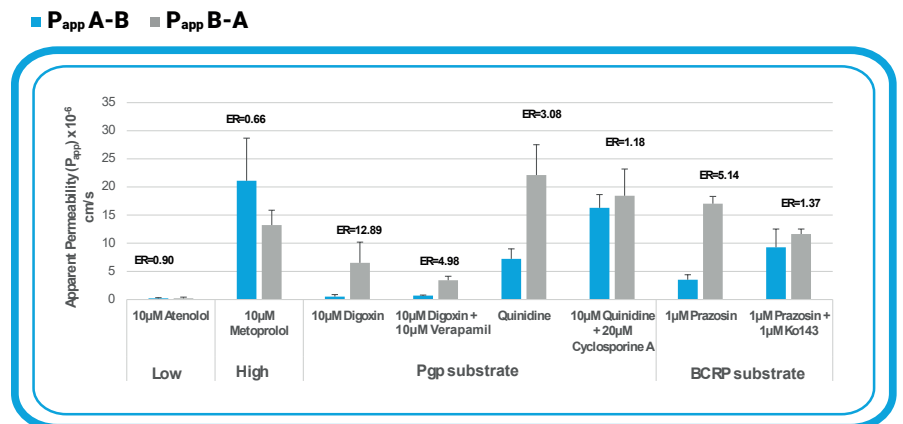


Figure 2. Reference compound's intestinal permeability (batch-to-batch variation).

Quality Controls

Transepithelial Electrical Resistance (TEER) and Lucifer Yellow Paracellular Permeability were employed to evaluate CacoReady cell barrier integrity. Assays were performed before (pre-) and after (post-) adding the shipping medium for delivery.

■ CacoReady 96-wells ■ LY Permeability ● LY Flux

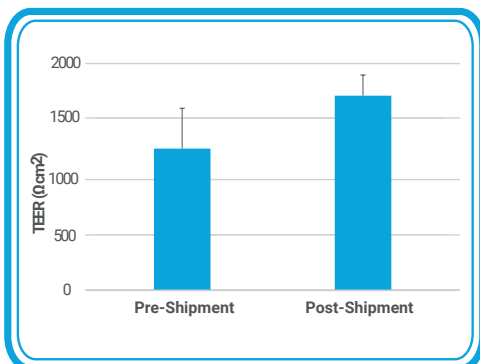


Figure 3. Changes in TEER values throughout the CacoReady manufacturing process. These data are the result of 3 different batches.

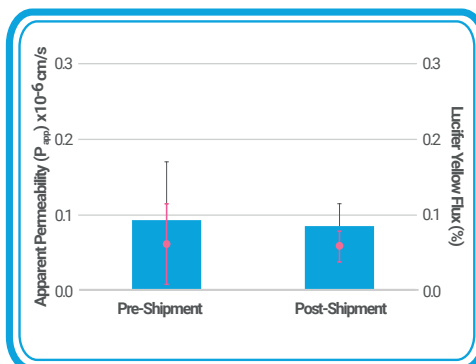


Figure 4. Lucifer Yellow Paracellular Permeability (P_{app}) before (pre-shipment) and after (post-shipment) adding the shipping medium. These data are the result of 3 different batches.

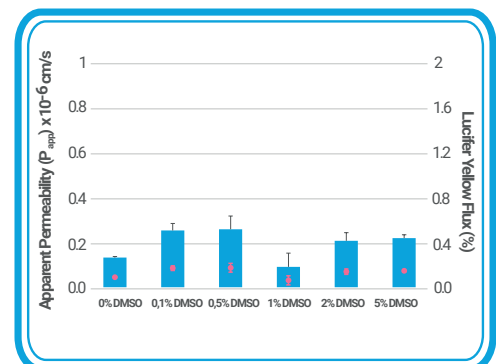


Figure 5. Effect of DMSO on barrier integrity of CacoReady cell monolayers. These data refer to a single experiment in triplicates.

Caco-2 regulatory requirements are detailed in the 2020 FDA and 2012 EMA Drug Interaction Guidelines and the ICH M9 Guideline.