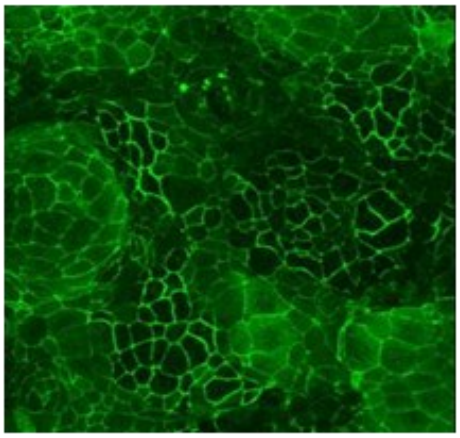
ADMEcell

CACOGOBLET

A Novel, Mucus Secreting Ready-to-Use Cell-Based Assay for In Vitro Intestinal Absorption Evaluation

FEATURES AND BENEFITS

- Mucus-secreting CacoGoblet **represents a more predictive model for compounds with passive diffusion transport pathway.**
- Differentiated co-cultured **Caco-2 and human goblet mucus - secreting cells (21 day system) plated on HTS Transwell-24 or 96 permeable supports.**
- Integrated Transwells **enable easy handling and provide a user-friendly system**
- Proprietary conditioning medium **allows for up to 9 days of transportation/storage at room temperature.**
- Adaptable **to automation.**
- Cost effective **for any size laboratory.**



CacoGoblet Barrier (21 days)

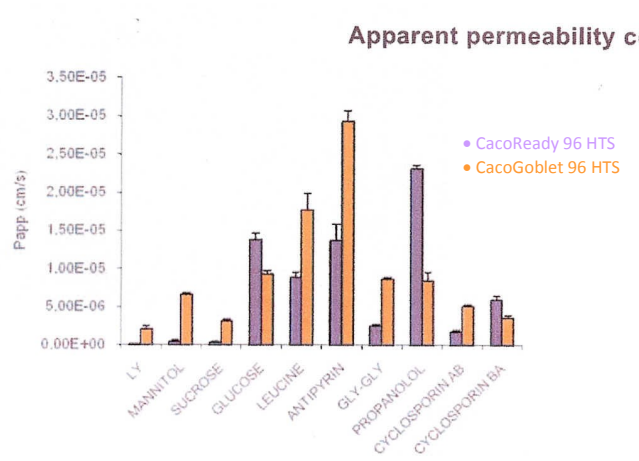
TECHNICAL DESCRIPTION

The CacoGoblet kit is a mucus-secreting ready-to-use assay consisting of 24 and/or 96-well permeable supports seeded with differentiated polarized Caco-2 and human goblet cells on polycarbonate microporous filters. CacoGoblet allows *in-vitro* intestinal absorption evaluation of drug targets in a barrier physiologically closer to the intestinal epithelium than Caco-2 cells alone. CacoGoblet provides flexibility for early stage drug discovery and development, since plates can be used up to 5 days after ideal cell barrier differentiation at day 21.

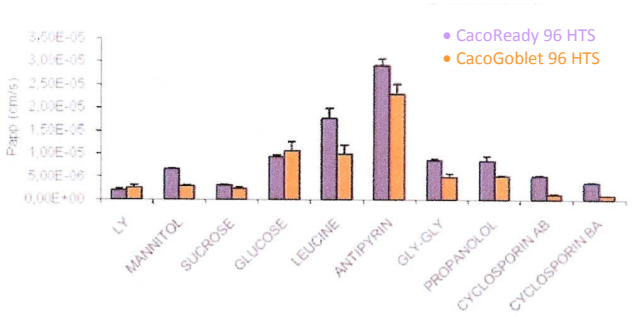
The intended use of this ready-to-use cell-based assay kit is for in-vitro evaluation of oral absorption efficiency, oral bioavailability and oral toxicity.

CAPABILITIES

- **Evaluation of oral absorption efficiency, oral bioavailability and oral toxicity**
- **Study of mechanisms involved in oral and intestinal absorption**
- **Suitable for research on new delivery systems**



Functionality comparison of CacoGoblet 96HTS vs. CacoReady 96HTS barrier, evaluated by permeability assays of several compounds at day 21

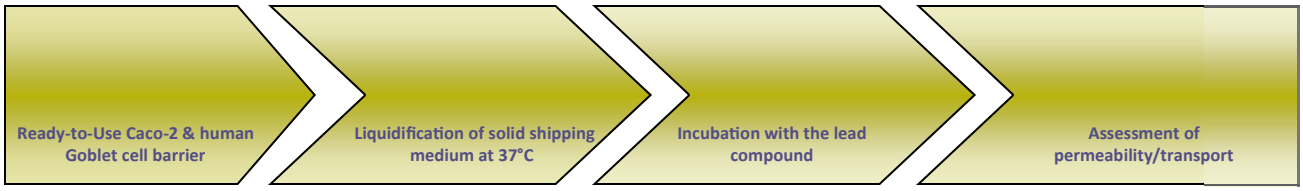


Functionality comparison of CacoGoblet 96 HTS vs. CacoGoblet 24HTS barrier, evaluated by permeability assays of several compounds at day 21

	Human Intestine	Caco-2	CacoGoblet
Composition	Absorptive (80%), Mucus-secreting (10-30%)	Absorptive (100%)	Absorptive (50%), Mucus-secreting (50%)
Presence of Mucus	Yes	No	Yes
Paracellular Permeability	More Permissive Epithelium	Very Tight Epithelium	More Permissive Epithelium
TEER (ohm.cm^2)	20-110	2000-3000	80-120

Comparison of permeability parameters amoung human intestine, caco-2 and CacoGoblet cell. CacoGoblet system leads to a more permeability epithelium which is more similar to physiological conditions.

FOUR SIMPLE STEPS OF CacoGoblet SYSTEM



PRODUCT INFORMATION

Product Number	Product Name	Format
001-1011	CacoGoblet Kit (Caco-2 & Goblet cells similar to human intestinal epithelium)	24-well plate
001-1012	CacoGoblet Kit (Caco-2 & Goblet cells similar to human intestinal epithelium)	96-well plate

*CacoGoblet™ is registered trade mark of ReadyCell.

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