

Figure S1. TEM sagittal image of Caco-2 monoculture cultured on 3 μm filters.

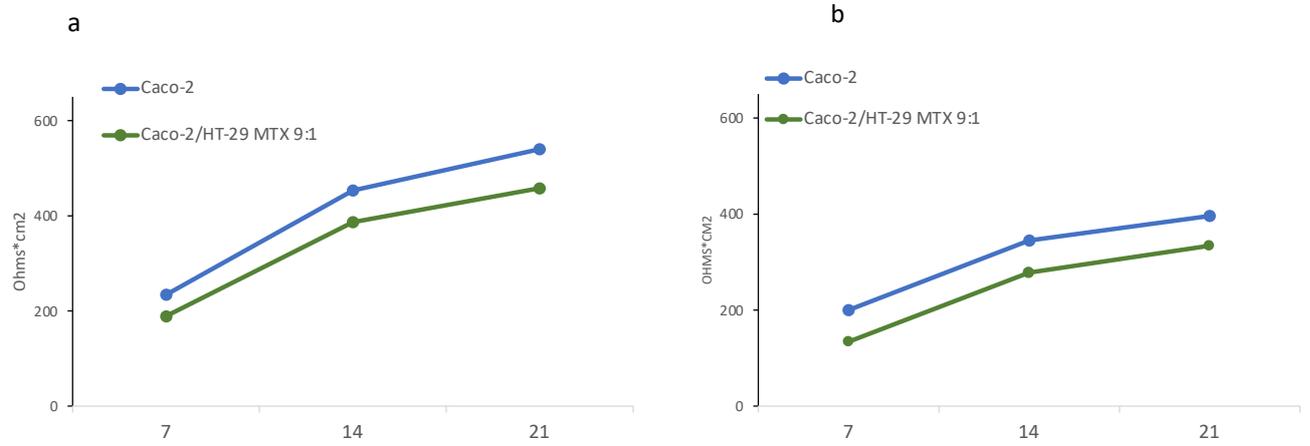
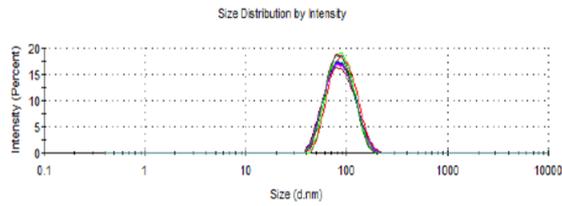


Figure S2. TEER measurement at different days of culture in 1 and 3 μm both for Caco-2 monolayer and Caco-2/HT-29 MTX co-culture.

## H2O To

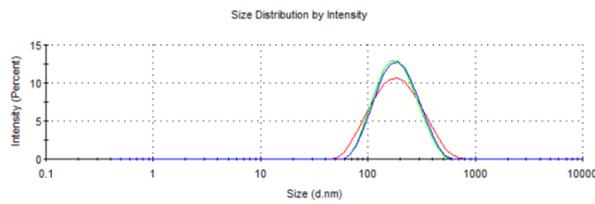
	Size (d.nm):	% Intensity:	St Dev (d.nm):
<b>Z-Average (d.nm):</b> 86,97	<b>Peak 1:</b> 94,65	100,0	27,62
<b>Pdi:</b> 0,089	<b>Peak 2:</b> 0,000	0,0	0,000
<b>Intercept:</b> 0,945	<b>Peak 3:</b> 0,000	0,0	0,000
<b>Result quality:</b> Good			



Record 1: 100 ug/ml in h20 1      Record 2: 100 ug/ml in h20 2

## DMEM To

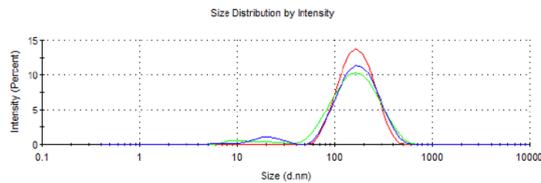
	Size (d.nm):	% Intensity:	St Dev (d.nm):
<b>Z-Average (d.nm):</b> 160,3	<b>Peak 1:</b> 206,6	100,0	106,6
<b>Pdi:</b> 0,234	<b>Peak 2:</b> 0,000	0,0	0,000
<b>Intercept:</b> 0,966	<b>Peak 3:</b> 0,000	0,0	0,000
<b>Result quality:</b> Good			



Record 1: siO2 100ug/ml in DMEM no PR 1perc FCS T0 1  
Record 2: siO2 100ug/ml in DMEM no PR 1perc FCS T0 2  
Record 3: siO2 100ug/ml in DMEM no PR 1perc FCS T0 3

## DMEM T24

	Size (d.nm):	% Intensity:	St Dev (d.nm):
<b>Z-Average (d.nm):</b> 126,2	<b>Peak 1:</b> 178,0	100,0	69,90
<b>Pdi:</b> 0,291	<b>Peak 2:</b> 0,000	0,0	0,000
<b>Intercept:</b> 0,948	<b>Peak 3:</b> 0,000	0,0	0,000
<b>Result quality:</b> Refer to quality report			



Record 6: silica nanobeads 100ug/ml 24 h in DMEM no PR 1 perc FCS 8  
Record 9: silica nanobeads 100ug/ml 24 h in DMEM no PR 1 perc FCS 9  
Record 10: silica nanobeads 100ug/ml 24 h in DMEM no PR 1 perc FCS 10

Figure S3. SiO<sub>2</sub> nano beads graphs of population size distribution for intensity obtained by DLS analysis:

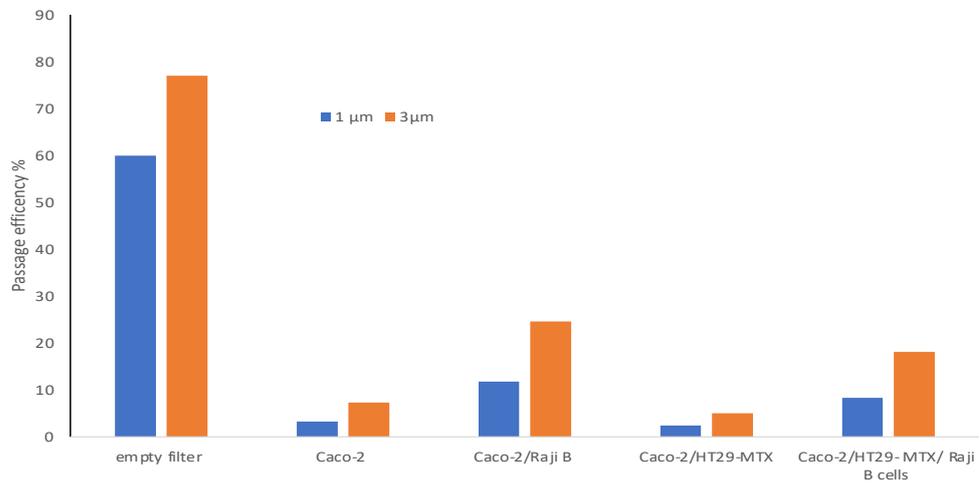


Figure S4. SiO<sub>2</sub> Translocation studies through empty filters and cell monolayers