

Materials List for:

High Content Screening Analysis to Evaluate the Toxicological Effects of Harmful and Potentially Harmful Constituents (HPHC)

Diego Marescotti¹, Ignacio Gonzalez Suarez¹, Stefano Acali¹, Stephanie Johnhe¹, Alexandra Laurent¹, Stefan Frentzel¹, Julia Hoeng¹, Manuel C. Peitsch¹

¹Biological System Research (BSR), Philip Morris International R&D

Correspondence to: Diego Marescotti at Diego.Marescotti@pmi.com

URL: <https://www.jove.com/video/53987>

DOI: [doi:10.3791/53987](https://doi.org/10.3791/53987)

Materials

Name	Company	Catalog Number	Comments
Cellomics ArrayScan VTI HCS Reader	Thermo	N01-0002B	
xCelligence RTCA MP	ACEA	05331625001	
Screener (HCS)	Genedata	NA	
CASY counter TTC	Roche	05 651 719 001	
e-Plates VIEW 96	ACEA	06 472 451 001	
RTCA Frame 96	ACEA	05232392001	
RTCA Cardio Temperature Tool	ACEA	2801171	
Plate sealer breathseal	Greiner bio-one	676051	
Normal Human Bronchial Epithelial cells (NHBE)	Lonza	CC-2540	non-smoking 60-year-old Caucasian male donor
BEGM BulletKit	Lonza	CC-3170	Warm at 37 °C before use
ReagentPack Subculture Reagents kit	Lonza	CC-5034	Warm at 37 °C before use
Penicillin/Streptomycin (100x)	Corning	30-002-CI	
Easy Flask filter cap 75 cm ²	Thermo Scientific	12-565-349	
96 well assay plate black	Corning	3603	
Hoechst 33342	Fisher Scientific	PI-62249	
Draq5 (For Far Red Nuclear Staining)	Biostatus	DR50200	
Mitochondrial Dye: MitoTracker Red CMXRos	Life technologies	M-7512	
Mitochondrial Dye: MitoTracker Red CM-H2XRos	Life technologies	M-7513	
ROS Dye: Dihydroethidium	Sigma	D7008	
ROS Dye: CellROX	Life technologies	C10422	
ROS Dye: MitoSOX	Life technologies	M36008	
GSH Dye: Monochlorobimane	Sigma	69899	Toxic
GSH Dye: Monobromobimane	Life technologies	M-1378	Toxic
Membrane permeability Dye: YO-PRO-1	Life technologies	Y3603	Irritating
Membrane permeability Dye: TO-PRO-1	Life technologies	T3602	Irritating
Membrane permeability Dye: TOTO-1	Life technologies	T3600	Irritating

Caspase Dye: Cellevect Caspase 3/7 green	Life technologies	C10423	Irritating
Anti-Cytochrome C antibody (Mouse)	Thermo	MA5-11823	
Anti-phospho-c-Jun antibody (Mouse)	Thermo	MA5-15889	
Anti-phospho-H2AX antibody (Mouse)	Thermo	MA1-2022	
Goat anti-Mouse IgG DyLight 650	Abcam	ab96878	
10x permeabilization buffer	Fisher	8408400	
4% Formaldehyde solution	Sigma	F1635	Toxic
10x blocking buffer	Fisher	8408500	
Dulbecco's Phosphate Buffered Saline	Sigma	D8537	
Hanks' Balanced Salt solution	Sigma	H8264	
Staurosporine	Sigma	S4400	Toxic
Valinomycin	Sigma	V0627	Toxic
Paraquat	Sigma	36541	Toxic
Anisomycin	Sigma	A9789	Toxic
Ethacrynic acid	Sigma	E4754	Toxic
1-Aminonaphthalene	Sigma	34390	Toxic
2-Nitropropane	Sigma	130265	Toxic
Acetamide	Sigma	695122	Toxic
Acetone	Sigma	650501	Toxic
Acrylamide	Sigma	A9099	Toxic
Arsenic (V)	Sigma	A6756	Toxic
Benzene	Sigma	12540	Toxic
Chromium (VI)	Sigma	216623	Toxic
Crotonaldehyde	Sigma	262668	Toxic
Methyl ethyl ketone	Sigma	34861	Toxic
Nickel	Sigma	203866	Toxic
Nitrobenzene	Sigma	48547	Toxic
Phenol	Sigma	P5566	Toxic
Quinoline	Sigma	241571	Toxic
Toluene	Sigma	34866	Toxic