Supplementary Data

Characterization of a novel high-throughput, high-speed and high-precision plate-based image cytometric cell counting method

Jordan Bell, Yongyang Huang, Henry Qazi, Dmitry Kuksin, Jean Qiu, Bo Lin & Leo Li-Ying Chan

Cell & Gene Therapy Insights 2021; 7(4), 427–447
DOI: 10.18609/cgti.2021.070

Supplementary Table 1

Celigo image analysis parameters for AO-stained Jurkat and CHO-S cells.

Image Analysis Parameters	**AO-Jurkat**	**AO-CHO**	**BF**
Algorithm	Fluorescence	Fluorescence	Fluorescence
Intensity Threshold	8	8	255
Precision	High	Normal	High
Cell Diameter	10	12	10
Dilation Radius	0	0	0
Background Correction	Uncheck	Uncheck	Uncheck
Separate Touching Objects	Uncheck	Uncheck	Uncheck
Minimum Cell Area	20	20	
Maximum Cell Area	1200	500	

Supplementary Table 2.

Average live cell concentration and CV for each sample measured on each instrument.

	Cellaca MX 1		**Cellaca MX 2**		**Vision 1**		**Vision 2**		**Auto2000 1**		**Auto 2000 2**	
Live Cell (cells/mL)	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**
Sample 1	1.2 x 10^6	4.7%	1.2 x 10^6	6.0%	1.1 x 10^6	6.9%	1.1 x 10^6	6.6%	1.1 x 10^6	7.6%	1.1 x 10^6	6.5%
Sample 2	0.6 x 10^6	7.1%	0.6 x 10^6	7.2%	0.5 x 10^6	5.4%	0.5 x 10^6	7.2%	0.5 x 10^6	8.0%	0.5 x 10^6	7.1%
Sample 3	2.0 x 10^6	5.3%	2.0 x 10^6	5.7%	1.9 x 10^6	2.9%	1.9 x 10^6	4.3%	1.9 x 10^6	3.9%	1.9 x 10^6	4.3%
Viability %	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**	**Average**	**CV**
Sample 1	86.8%	3.4%	85.8%	3.0%	83.3%	4.4%	84.3%	3.9%	83.9%	3.5%	83.5%	3.9%
Sample 2	83.6%	2.3%	83.1%	5.0%	79.1%	4.0%	81.3%	4.1%	80.8%	4.1%	78.4%	5.6%
Sample 3	87.3%	1.5%	86.8%	1.4%	84.5%	1.6%	86.0%	1.9%	84.0%	2.2%	84.5%	1.4%