Datasheet

Countstar® Rigel S2

Advanced Image Cytometer

Product feature

Smart

The BioApps of the Countstar Rigel S2 System simplify routine cell lab tasks while providing high quality scientific data.

Countstar S2 comes with three BioApps to simplify and automate the routine cell count, viability and cytotoxicity tasks.

- Trypan blue BioApp: Obtain cell count, viability and concentration estimations based on trypan blue staining using a disposable consumable.
- AO/PI Viability BioApp: Run two fluorescence color assays in disposable consumable to determine the percentages of live, dead cells and concentration in the presents of debris and unwanted nonnucleated cell types including red blood cells.
- GFP transfection: The green fluorescent protein (GFP) exhibits bright green fluorescence when exposed to light in the blue to ultraviolet range. This protocol can analyze counting and percentage of GFP.

Three step process

The Countstar S2 System is designed to take you from sample to result in one go, simplifying your work and allowing for increased productivity and efficiency.

Reproducible and Accurate

Countstar S2 system can automatic detect 5 samples at one time, it will be more efficiency and affordable, with integrated patent "fixed focus", the results would be more stable and reliable.

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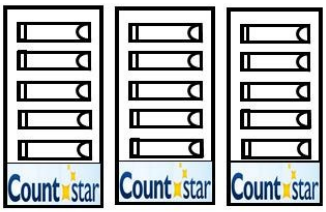
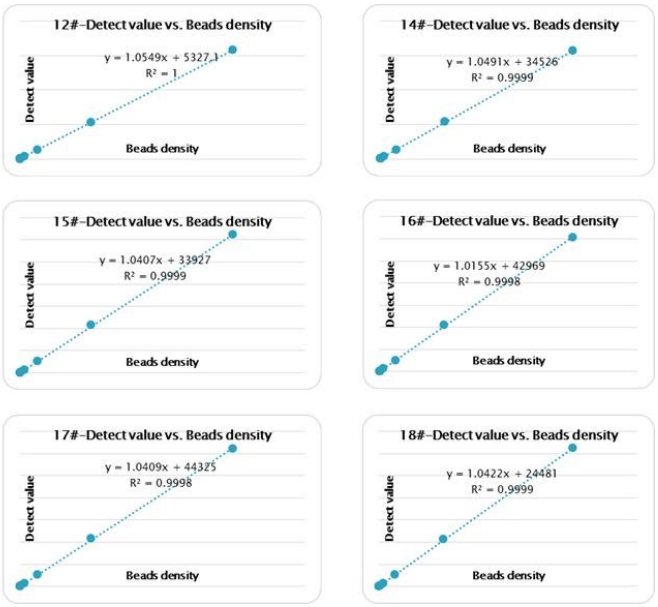


Slide: Intraassay CV <5%
Interassay CV <5%

Countstar: Intraassay CV <5%
Interassay CV <5%



Linear detect results with six different Countstar Mars

Touch Screen with Flexible Experiment Assay Management System
"App-like" interface. Allow to add multiple Experiment Assays for different operators

GMP ready
The Countstar S2 system is designed to meet the modern pharmaceutical requirements. The software complies with 21 CFR part 11. Key features include control of user access and data export, and secure audit trail. At the same time, we also supply IQ/OQ service and PQ support to help customer build a reliable system.

Specifications

Technical Specifications	
Model:	Countstar Rigel S2
Diameter range:	3μm ~ 180μm
Concentration range:	1×104 ~ 3×107/mL
Objective magnification:	5x
Imaging element:	1.4 megapixel, CCD camera
Excitation Light	480nm, 525nm
Emission Filter	535nm, 600LP
USB	1×USB 3.0 1×USB 2.0
Storage:	500GB
Power supply:	110–230 V/AC, 50/60Hz
Screen:	10.4 inch touchscreen
Weight:	13kg (28lb)
Size (W X D X H):	Machine: 254×303×453mm Package size: 430×370×610mm
Operating temperature:	10ºC ~ 40ºC
Working humidity:	20% ~ 80%

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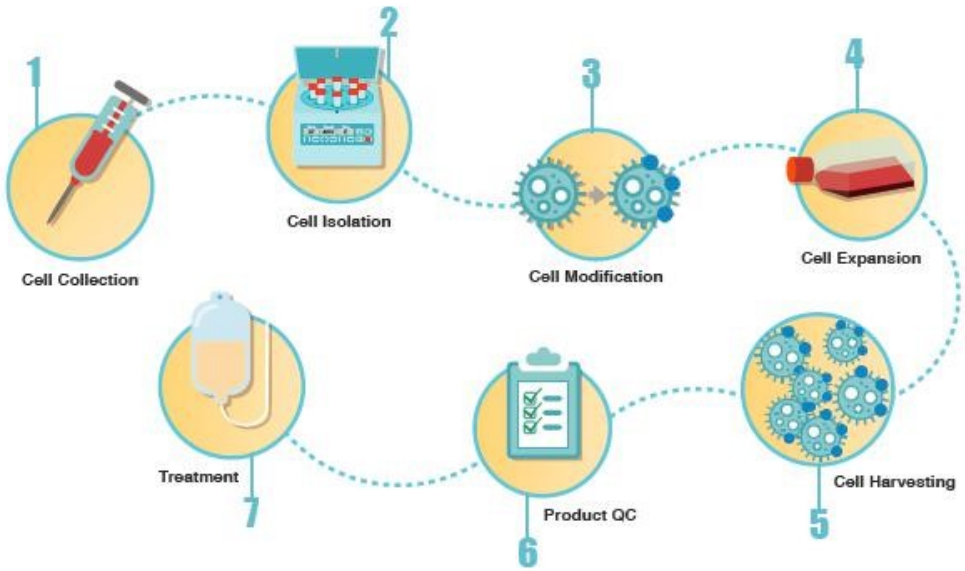
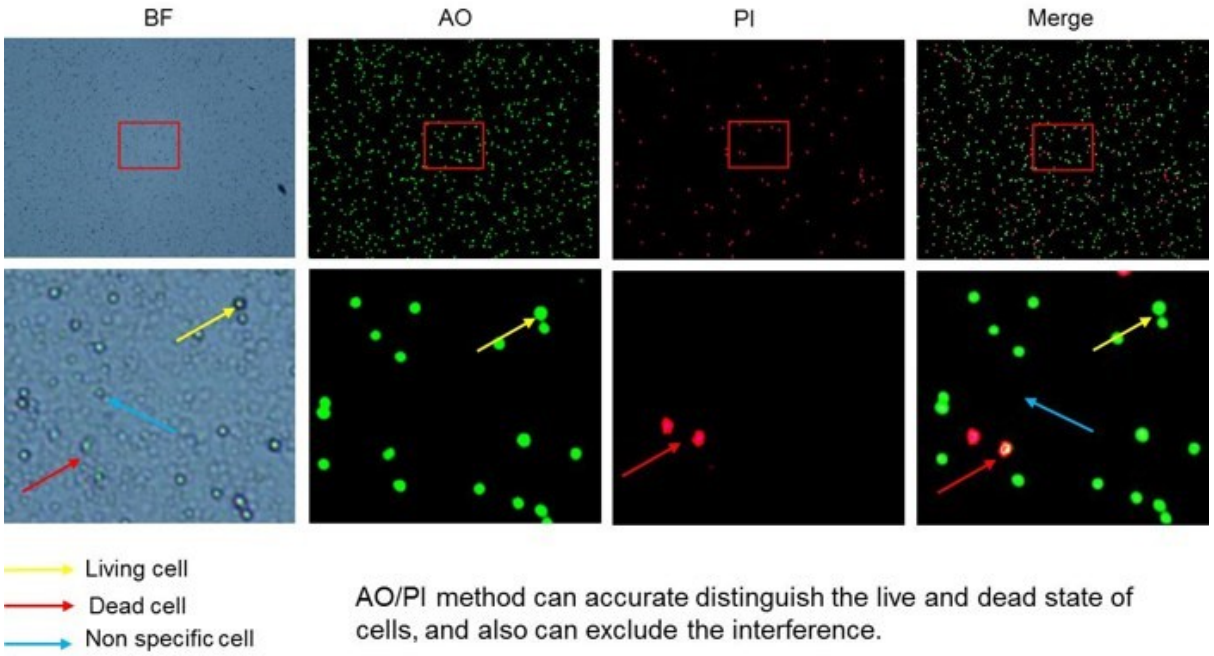
Applications

Monitoring the Quality of CAR-T Production during the whole Process



The immuno therapy, such as CAR-T involves the collection of peripheral blood mononuclear cells (PBMC) from the patient, then enrichment of the desired T cell subset followed by genetic modification to create engineered CAR-T cells. The CAR-T cells are expanded in large-scale and then infused back into the patient. With the Countstar S2 system it is possible to continuously monitor the viability and concentration every step of the entire process of manufacturing CAR-T cells under GMP.

Dual-Fluorescence Viability
Acridine orange (AO) and Propidium iodide (PI) are nuclear nucleic acid binding dyes. The analysis excludes cell fragments, debris and artifacts particles as well as undersized events such as platelets, giving a highly accurate result. In conclusion, the Countstar system can be used for every step of the cell manufacturing process.



AO/PI method can accurate distinguish the live and dead state of cells, and also can exclude the interference.

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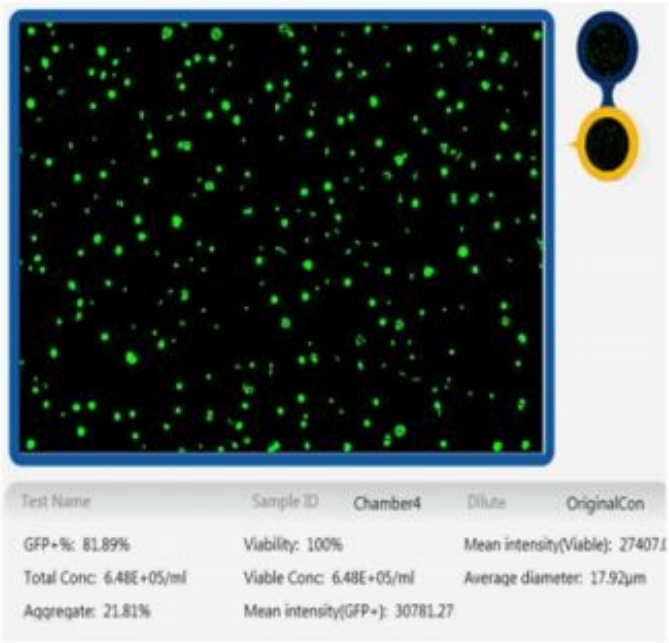
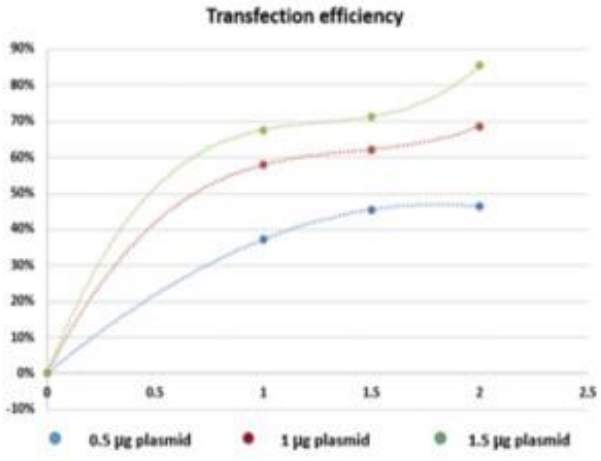
GFP Transfection Efficiency

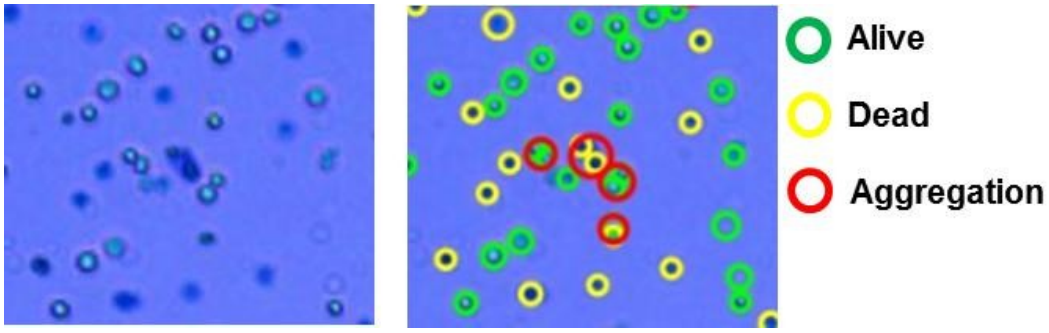
In cell and molecular biology, the GFP gene is frequently used as a reporter of expression. Currently, scientists are commonly using the fluorescent microscopes or flow cytometers to analyze the transfection efficiency of mammalian cells. But Flow cytometer requires a high-qualified and experienced operator. While Countstar FL enables users to get the result of a transfection efficiency assay quickly and accurately.





Trypan blue viability and concentration

Trypan blue viability and concentration assay also can be available on Countstar S2. Shown here, are the enlarged representative images of cell line. Since all of the cells were stained with trypan blue, we show the stained trypan blue image as well as the Countstar S2 counted image.



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