Fluorescence Cell Analyzer

FACC-Tuger

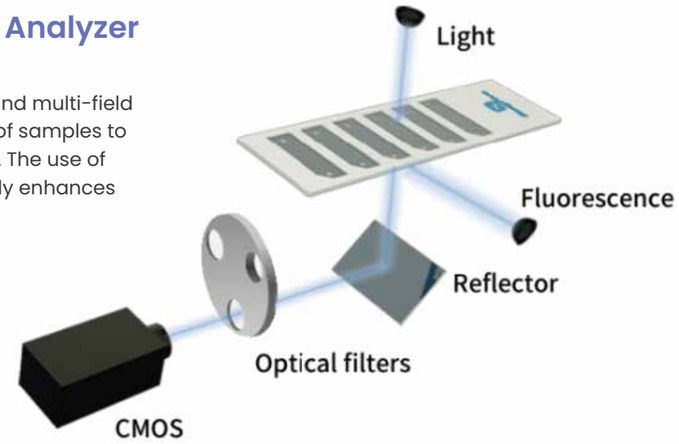
- Concentration Range: 1×10^4–3×10^7 cells/mL
- Diameter Range: 5-200μm
- Viability Range: 0-100%
- Sample Volume: 10 μL (GPC100, GR100) / 20 μL (GPC200, GR200)
- Equipped with two fluorescent excitation wavelengths and two detection filters

Description

It is equipped with two fluorescent excitation wavelengths and two detection filters. It also offers a bright field view of all samples through its digital microscope optics. The analyzer enables routine analysis of cell density, viability, and transfection efficiency. The pre-configured apps ensure easy and safe execution of all tests.

Autofocus Automated Cell Analyzer

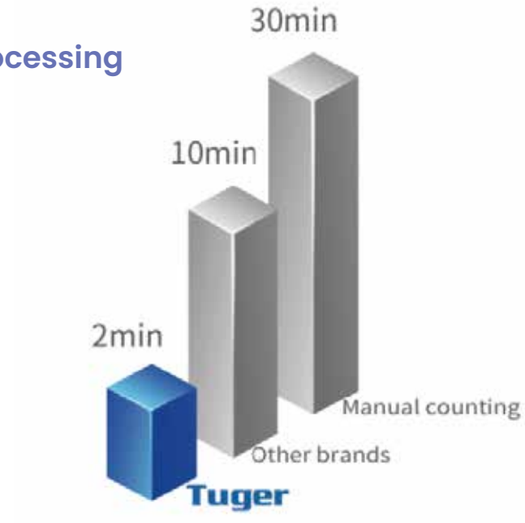
This cell analyzer enables multi-channel and multi-field sampling. It provides automatic focusing of samples to ensure clear images and accurate results. The use of light sources and filter wheel design greatly enhances system stability and operability.



Five Fields of View per Sample with High Repeatability and Fast Image Processing

During the counting process, this cell analyzer captures 5 fields of view per sample and simultaneously collects bright field and dual-channel fluorescence image data. The larger sample acquisition volume ensures counting accuracy. It can complete fluorescence analysis of a single field of view within 4 seconds and deliver results for 6 samples in just 2 minutes*.

**Results from a single fully automated test of six samples of suspension culture cells at a concentration of 1×10^6 cells/mL.



Time reference required to measure 6 samples

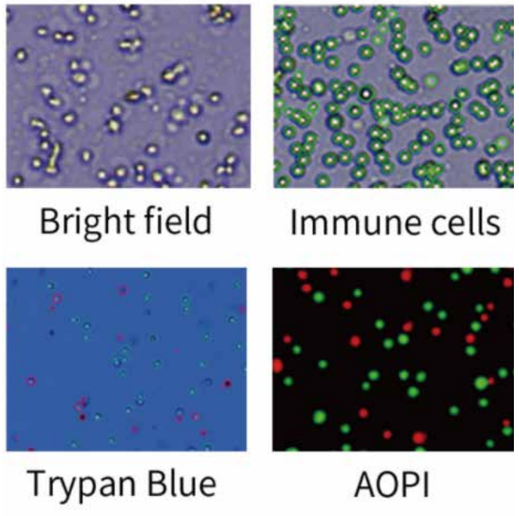
FDA 21 CFR Part 11 Compliant Operation

It provides features such as multi-user levels and permissions management, encrypted data export, electronic signatures and records, audit trails, and more. These functionalities ensure accurate, reliable, and consistently stable results while also providing the capability to identify illegal or tampered records.

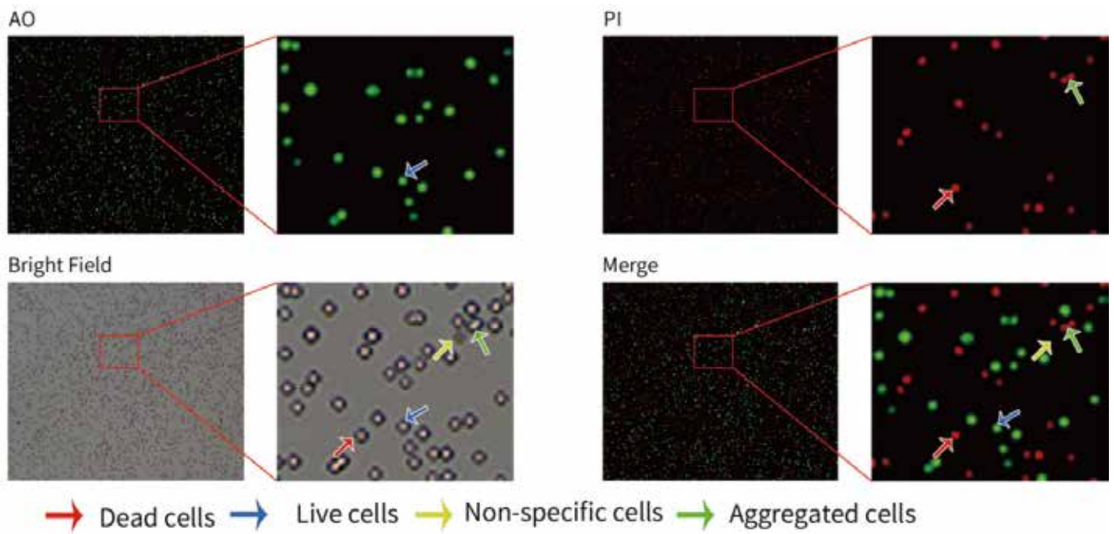
Supporting Various Cell Applications

This cell analyzer comes standard with excitation wavelengths of 475nm and 545nm, and emission wavelengths of 530nm and 605nm*, to meet diverse fluorescence application requirements. The software features multiple analysis modes, including bright field, trypan blue, fluorescence, and organoids.

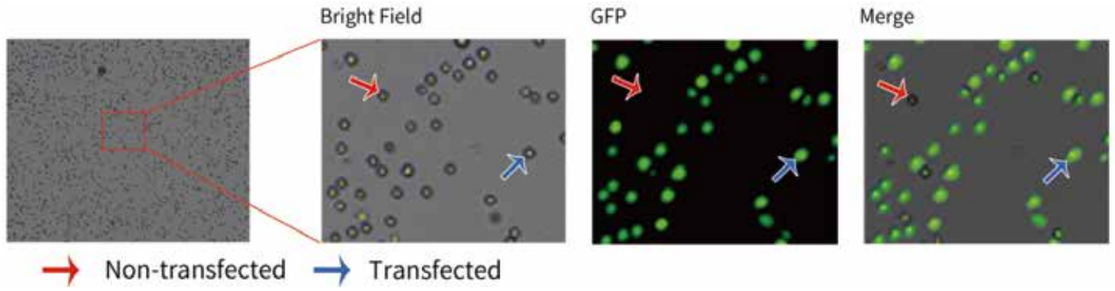
*It comes standard with two sets of excitation and emission wavelengths to support various fluorescence assays, such as AO, PI, AOPI, GFP, and RFP.



AO/PI Double Fluorescent Staining



Cell transfection-GFP Fluorescence Detection



Specification

Model	FACC-Tuger
Concentration Range	1×10^4–3×10^7 cells/mL
Diameter Range	5-200μm
Viability Range	0-100%
Sample Volume	10 μL (GPC100, GR100) / 20 μL (GPC200, GR200)
Single-Sample Analysis Time (Single View)	Bright field < 1 second, Fluorescence < 12 seconds (AO/PI)
Single-Sample Analysis Time (Five Views)	Bright field < 8 seconds, Fluorescence < 54 seconds (AO/PI)
Six-Sample Analysis Time (Five Views)	Bright field < 55 seconds, Fluorescence < 334 seconds (AO/PI)
Excitation Wavelengths	475nm, 545nm
Emission Wavelengths	530nm, 605nm
Fluorescence Light Source	Blue LED / Green LED
Bright Field Light Source	White LED
Output Formats	JPG, PDF, CSV, FCS (optional)
Features	6-slot counting high-throughput, flow cytometry data, organoid analysis, FDA, LIMS interface, dilution calculator
Screen	7-inch multi-touch color display
Camera	Industrial-grade CMOS, 6.3 megapixels (high-definition color)
Storage	Standard 128 GB hard drive (other capacities optional)
Focus Mode	Autofocus
Other Interfaces	2 USB ports, 1 HDMI port, and 1 RJ45 network port
Applicable Consumables	Six-chamber counting slide
Dimensions (W*D*H)	190*276*367 mm
Weight	4.4 kg (excluding power adapter)

Fully Automatic High-throughput Cell Counter

FACC-Venus

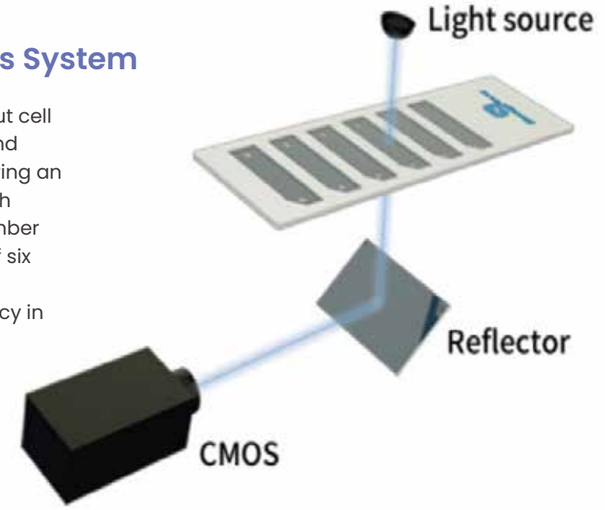
- Concentration Range: 1×10^4–3×10^7 cells/mL
- Diameter Range: 5-200μm
- Viability Range: 0-100%
- Sample Volume: 10 μL (GPC100, GR100) / 20 μL (GPC200, GR200)
- It enables high-throughput brightfield and trypan blue counting for various cell types

Description

This product can perform high-throughput bright field and trypan blue cell counting on various cell types. It features an integrated design with a 7-inch screen. With the 6-chamber cell counting slide, it can accurately count 6 samples in a single step in just 1 minute.

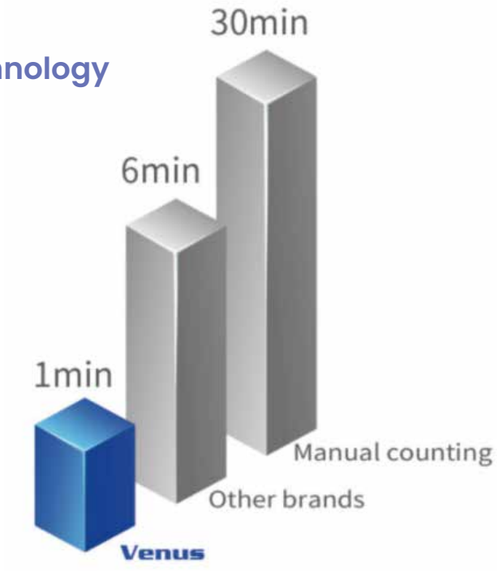
Fully Automatic/ Autofocus Cell Viability Analysis System

This product is a fully automated, high-throughput cell counter. It enables high-throughput brightfield and trypan blue counting for various cell types. Featuring an all-in-one design, Venus is equipped with a 7-inch display and works in conjunction with the 6-chamber cell counting slide, enabling accurate counting of six samples in a single step—taking only 1 minute. Its compact design greatly enhances space efficiency in the laboratory.



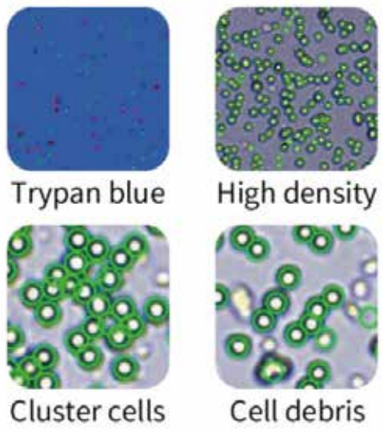
Stable, High-Speed, High-Throughput Image Analysis Technology

The cell counter is equipped with a high-resolution, industrial-grade CMOS sensor. During the counting process, it captures multiple fields of view for each sample and automatically calculates the average. Validation results show that the counting data yields a fitted R^2 value greater than 0.999. Compared to traditional manual counting using a hemocytometer—which takes approximately 5 minutes to count 1×10^6 cells—Venus delivers results in just 10 seconds.



AI Algorithm

The cell counter incorporates a proprietary AI-based algorithm. Validation tests show that for the same sample, the coefficient of variation (CV) is less than 10% for single-field counting and less than 5% for multi-field counting. The algorithm has been optimized to handle challenging samples, including small-diameter cells, high-density suspensions, cell clusters, and samples containing cell debris.

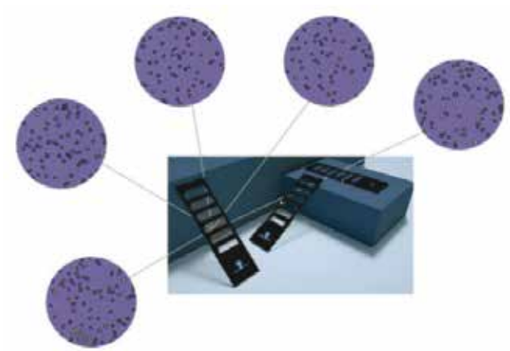


Intuitive Interactive Interface

The cell counter operates as a standalone device without the need for an external computer—ready to use upon startup. Users can freely select analysis modes and adjust settings as needed. The software provides result images along with detailed data such as concentration, viability, and diameter distribution, all of which can be viewed and exported in multiple formats to meet diverse user needs.

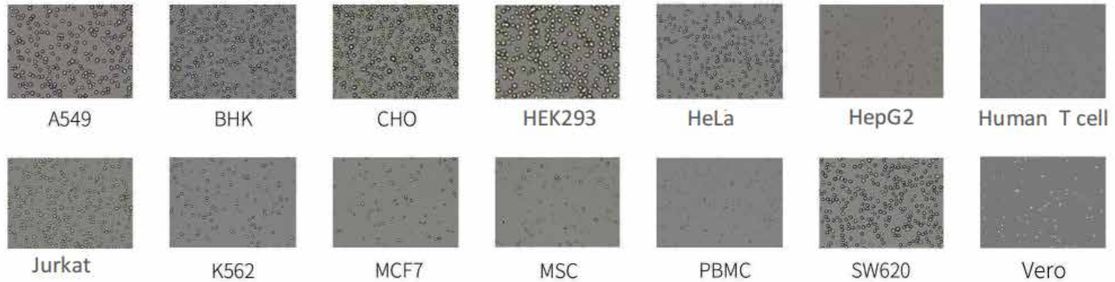
Cell Counting Slide / Reusable Counting Slide

Designed for high throughput, each slide enables simultaneous counting of 6 samples. As a disposable consumable, it eliminates the need for cleaning, saving time and preventing cross-contamination. Available in 100 µm and 200 µm specifications: the 100 µm slide is ideal for high-concentration or small-diameter cells, while the 200 µm slide is suitable for a wide range of common cell types.



Broad Cellular Applicability

We have conducted extensive validation testing across a wide range of cell types. Validated cell lines include: RAW, EG7, LNCaP, HepG2, SW480, KYSE-510, Huh-7, MCF-7, HeLa, CHO, HEK293, Jurkat, K562, PBMCs, SW620, Vero, and others.



Validated cell lines

Specification

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Diameter Range	5-200µm
Viability Range	0-100%
Sample Volume	10 µL (GPC100, GR100) / 20 µL (GPC200, GR200)
Single-Sample Analysis Time (Single View)	< 1 second
Six-Sample Analysis Time (Five Views)	< 51 seconds
Output Formats	JPG, PDF, CSV
Features	6-slot counting high-throughput, flow cytometry data, organoid analysis, FDA, LIMS interface, dilution calculator
Screen	7-inch multi-touch color display
Camera	Industrial-grade CMOS, 6.3 megapixels (high-definition color)
Storage	Standard 128 GB hard drive (other capacities optional)
Focus Mode	Autofocus
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