

Halo CounterAI Algorithm



Automated Cell Counter without Slides

Why do scientists choose the Halo Counter?

A Chinese innovation, the world's first high-throughput, consumable-free cell counter (with a National invention patent). The patented sample stage design allows for easy cleaning with just one wipe, leaving no residue on the sample. While significantly increasing sample testing throughput, it eliminates the need for disposable plastic counting plates, greatly reducing usage costs and preventing plastic pollution, thus protecting the environment. The new 3S standard for cell counting in the industry: Smart, Speed, Save.



HD-2 HD-4 HD-8

Patent Technology Analysis

The sample stage is made of high-hardness quartz with a metal base, making it durable and sturdy. The quartz surface is coated with cutting-edge nano-materials, ensuring smooth sample injection with no bubbles and no residue left on the sample. The system uses a pipette for direct sample addition and counting, eliminating the need for disposable plastic cell counting plates. No washing is required, and after testing, multiple channels can be cleaned with a single wipe.



Leading Full-Stack Artificial Intelligence Algorithm

Unlike other cell counters, the Halo Counter integrates powerful artificial intelligence (AI) algorithms into every step of the operation-from automatic image focusing and image acquisition to cell segmentation and analysis. Each process is intelligently managed. The deep application of AI technology not only enhances operational convenience but also significantly improves the accuracy and efficiency of data analysis. Researchers can experience comprehensive AI support during experiments, obtaining high-quality, precise, and reliable data, providing strong technical support for scientific research.



High Precision and High Reproducibility in Detection Results

The Halo Counter provides highly accurate and reproducible detection results, ensuring stable and reliable data in every experiment. Whether measuring extremely low or high concentrations, the instrument delivers precise measurements with exceptional accuracy and maintains consistency across multiple tests. This significantly reduces human error and equipment variability, ensuring high reliability and repeatability of experimental results, meeting the strict demands for precise data in both research and clinical settings.



Comprehensive Adherent Cell Analysis Function

Traditional gene transfection efficiency analysis requires cells to be digested. Halo Counter has innovated by launching the Halo Box adherent cell analysis module, equipped with gene transfection efficiency analysis algorithms, confluence analysis algorithms, and more, enabling in situ analysis of adherent cultured cells. It is compatible with 6-96 well plates, culture dishes, and T25 flasks.



More Flexible Product Options

The Halo Counter introduces 4x and 10x true optical variable magnification technology, offering flexible combinations to meet the varying needs of different users, including sample throughput, sample types (cells/microorganisms), and sample concentration requirements. It caters to the detection needs of cells, microorganisms, algae, and other samples at various concentrations.



Liver tissue lysate (containing a large number of cell fragments), AOPI can be used to identify cells with fragments



Human embryonic stem cells (with irregular cell edges)



Smaller cells: Staphylococcus aureus (diameter approximately 2-3 microns)

Smart and Convenient Operating System

The Halo Counter comes preloaded with a variety of applications for common cell lines, primary cells, PBMCs, T cells, blood cells, ES cells, yeast, and bacteria. Using advanced deep learning neural network algorithms, we have developed unique large data models for each cell type. Users can simply select the appropriate app without the need for complicated parameter settings. With just one click, they can start the experiment, greatly simplifying the workflow and improving efficiency.



CFR21 Part11

The Halo Counter offers an optional software control system for facilities that comply with GxP regulations. This software is fully integrated into the instrument's operating system and includes a range of essential features to ensure compliance, including:

- Password-protected system access
- Integrated electronic signature control
- Comprehensive user account management
- Secure audit trail records
- Advanced data processing and export tools

Publication

Preventive intervention with *Agaricus blazei murill* polysaccharide exerts anti-tumor immune effect on intraperitoneal metastasis colorectal cancer. International Journal of Biological Macromolecules (2024)

Isolation and evaluation of multi-functional properties of lactic acid bacteria strains derived from canine milk. Frontiers in Veterinary Science (2024)

Specification

	Bright Field Cell Counter	Fluorecence Cell Counter
Optics Channel	Bright Field, Typan Blue	Bright Field, Typan Blue, AOPI, GFP, mCherry
Diameter range	1-400um	0.8~400um
Concentration range	$1x10^{3} \sim 3x10^{7}$ cells/ml	
View of capture	1, 3(normal), 4, 5	
Objective	4X or 4X&10X	
Sample volume	5ul(50um height), 20ul (200um height, standard), 40ul(400um height)	
Bright field	White LED	
Excitation channel		488nm,587nm LED
Emission Filters		535nm and 600LP
Focus	Auto focus	
Camera	6.3MP CMOS	



Ordering Information

- HD-4 Four Chambers Bright Field Cell Counter with 4x without slides
- HD-8 Eight Chambers Bright Field Cell Counter with 4x without slides
- HD-4FL Four Chambers Fluorescence Cell Counter with 4x without slides
- HD-8FL Eight Chambers Fluorescence Cell Counter with 4x without slides
- HD-4M Four Chambers Bright Field Microbial Cell Counter with 10x without slides
- HD-4MFL Four Chambers Fluorescence Microbial Cell Counter with 10x without slides
- HD-4+ Four Chambers Bright Field Cell Counter with 4x&10x without slides
- HD-8+ Eight Chambers Bright Field Cell Counter with 4x&10x without slides
- HD-4FL + Four Chambers Fluorescence Cell Counter with 4x&10x without slides
- HD-8FL+ Eight Chambers Fluorescence Cell Counter with 4x&10x without slides

About us

Hiscore was founded in 2021, our HQ located in Beijing.we committed to develop robust cytobiology analysis instrument ,our team owned over fifty years experience in cell imaging analysis system.

Our company got ISO9001 Certification, our products conform to CE,FCC and TELEC Certification.

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