

Immune monitoring is moving toward multiplexing. CTL S6 FluoroSpot Analyzers permit multicolor T and B cell ELISPOT analysis, live/dead PBMC counting, and much more. These instruments offer an attractive alternative to flow cytometry — sharing many of its strengths while bypassing its weaknesses.

Up to Eight Color Fluorescent Analysis

Four individually-engaged fluorescent light sources permit selective excitation of fluorochromes and quantum dots, even if they have partially overlapping spectra. When used with the eight customizable filters, cross contamination of colors can be avoided: no compensation needed! Plus, they feature bottom and top lights for versatile white light operation.

Versatile Well Formats

S6 FluoroSpot Analyzers feature a wide optical zoom range permitting analysis at the microscopic (single cells and subcellular particles) as well as the macroscopic level (colonies, plaques) in 384-, 96-, 48-, 24-, 12-, and 6-well formats. They can also analyze histological slides and hemocytometers.

ELISPOT/FluoroSpot Analysis

The primary field of application for S6 FluoroSpot Analyzers has been multi-color ELISPOT analysis. CTL employs a technology specifically designed to avoid excitation cross-contamination, enabling the accurate detection of up to eight analyte coexpressing cells, including polyfunctional T cells.

ELISPOT assays are also used to detect immunoglobulin release by antibody-secreting cells (ASC). These assays are traditionally done in single-color, detecting only one Ig class or IgG subclass at a time. CTL introduces the first four-color B cell ELISPOT assay in

which all four Ig or IgG subclasses can be detected simultaneously.

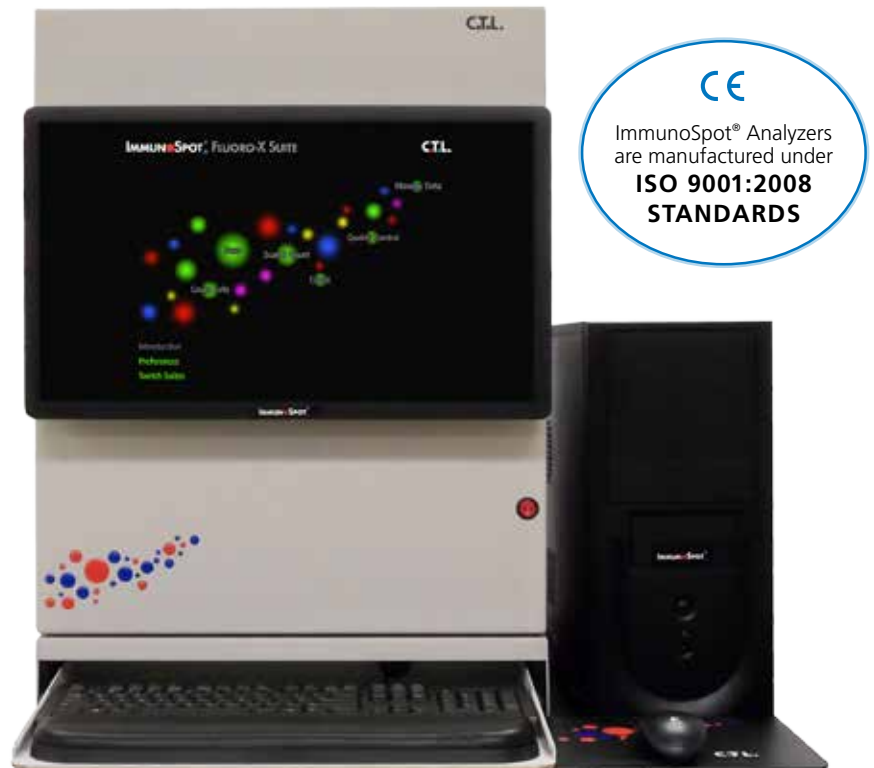
Also introducing the ultra high-throughput 384-well ELISPOT, a novel trend in the field that permits one to work with 75% less PBMC material than the classic 96-well method.

CTL's renowned ImmunoSpot® Software assists with all major steps of the assay. It designs and prints plate layouts, generates barcodes, documents raw, counted, and QC images, and exports the counts into an assigned database to automatically calculate the results.

Cell Counting Software

Manual live/dead cell counts are a key parameter for interassay data comparability. It is also the most time-consuming and rate-limiting step in high-throughput ELISPOT assays. CTL's Cell Counting Software analyzes your samples in seconds and saves each fluorescent live/dead well image. It summarizes viability, resuspension volumes, and other more detailed reports.

Don't spend a fortune on separate live/dead counters when you can rely on the documentation and transparency of the CTL Cell Counting Software.



IMMUNOSPOT[®] CTL S6 FluoroSpot Analyzers

FEATURES AND SPECIFICATIONS	FLUOROCORE	UNIVERSAL	ULTIMATE
ELISPOT (2 Analytes)	✓	✓	✓
FluoroSpot (# of Analytes)	2 / 3	3 / 6 / 8	8
Number of Fluorescent Excitation Sources	1 / 2	2 / 3 / 4	4
Lens Type	Fixed	Manual Zoom / Motorized	Fully Motorized
Max Image Resolution (MegaPixels)	10	18 / 25	25
Supported plate formats			
384-well	✓	✓	✓
96-well	✓	✓	✓
48-well	✓	✓	✓
24-well	✓	x/✓	✓
12-well	x	x/✓	✓
6-well	x	x/✓	✓
Single cell Imaging/Counting	✓	✓	✓
Live/Dead	x/✓	x/✓	✓
Histological Slides (Visible)	x	✓	✓
Histo Slides, Fluorescent (Colors)	x	3 / 6 / 8	8
GLP capability	✓	✓	✓

Single Cell or Bead Analysis

Flow cytometry does not work well with adherent/clumping cells, requires a sample size of more than 100,000 cells for analysis, and is slow and inaccurate when it comes to acquiring rare cells (<0.1%). Moreover, multi-parameter flow analysis needs to be done manually, in a subjective and tedious process. In contrast, image analysis-based multiparameter analysis of cells with S6 FluoroSpot Analyzers can be done with adherent or non-adherent cells alike, and the sample size for analysis can be as low as one cell. Individual positive cells within one

million bystander cells can be analyzed for eight colors at a rate of five seconds per sample as scanning and analysis progresses in a fully-automated fashion. Fields of application include:

- Intracytoplasmic virus
- Reporter gene expression
- FFA
- NK Assay
- CTL Assay
- ADCC Assay
- CDC Assay
- Cell proliferation
- and more...

Colony and Plaque Counting

The S6 FluoroSpot Analyzers find increasing acclaim in the field of colony and plaque counting.

Due to the complex morphologies involved, until recently such assays could only be reliably evaluated by highly-trained experts. CTL has developed a highly-sophisticated BioSpot[®] platform the completely automates analysis with an accuracy comparable to visual counts generated by experts. Supported formats are from 384 to 6 wells, using visible and/or up to eight-color fluorescent analysis for:

- Viral plaque assays
- Neutralization assays
- Clonogenic assays
- Stem cell assays
- Genotoxic assays
- Microbial assays
- and more...

Regulatory Compliance

S6 FluoroSpot Analyzers support professional, GLP-compliant work. They come with a highly-developed QC module which retains audit trail information including tamper-proof archiving of the original digital images, counting results and annotated QC changes. An optional Compliance package is available for regulated 21 CFR Part 11 environments.

Contact us today for more information on our array of sophisticated solutions.



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