

Fluoroskan Ascent®

The Fluoroskan Ascent sets the standard for performance, features and ease of use, for even the most demanding fluorometric applications, from detection of multiple analytes to FRET assays, for example.

High-performance optics

Based on a mirror and lenses, the direct illumination optics of the Fluoroskan Ascent produces a highly focused light beam. The sharp focus prevents crosstalk and ensures accurate readings. Two easy-to-select light beams allow the optimal choice for 1- to 96- and 384-well plates. The normal beam has a diameter of 3 mm in the sample, while the narrow beam is 1.5 mm in diameter. The easy-to-switch optical unit reads from the top or bottom of the plate. For cell biology applications, bottom reading allows closer proximity to cells and greater sensitivity. Black microplates and top reading eliminate crosstalk and reduce background signal, producing a better signal-to-noise ratio.

Simultaneous dispensing and measurement

Up to three dispensers can be fitted on board the Fluoroskan Ascent for Ca^{2+} measurement, enzyme kinetic studies, and other applications that require measurement immediately after reagent addition. The dispensers allow precise delivery of

reagents over an adjustable volume range of 5 – 1000 μl .

On-board incubation and orbital shaking

To speed up reactions and improve assay performance Fluoroskan Ascent has a built-in incubator and orbital shaker. Both the speed and amplitude of shaking can be adjusted. The incubator is invaluable when it comes to cell biology, enzyme assays and other applications where temperature control is essential.

Convenient robotic integration

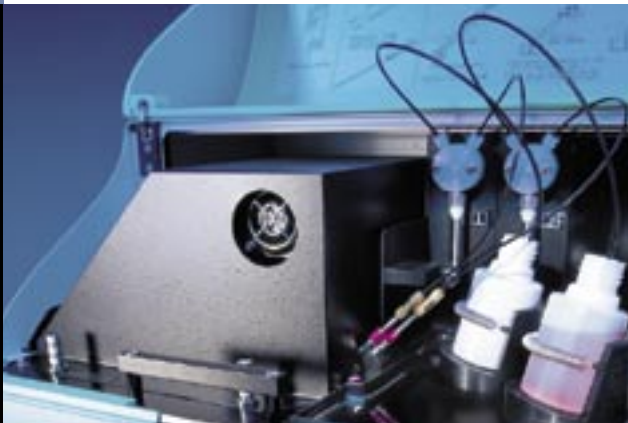
Robotic integration is simple and effective with the Fluoroskan Ascent. The plate carrier allows convenient access for the robotic arm, while Ascent Software is easy to integrate with robotic and HIS/LIMS systems. For high-volume testing, Fluoroskan Ascent can be combined with automated plate handling devices.

Easy-to-use Ascent Software®

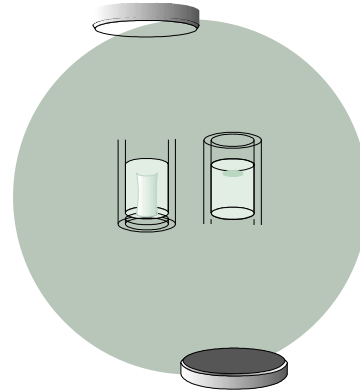
Fluoroskan Ascent together with Ascent Software provide a system that performs well even with complicated and challenging applications and makes assay design easy. For further information about the features of Ascent Software, see pages 24–26.

Measurement of intracellular Ca^{2+} flux

Combined with the innovative dispenser system, the unique features of Ascent Software support intracellular Ca^{2+} measurement. To meet the critical requirements of time optimization, the instrument can dispense and measure simultaneously. Ascent Software is



Fluoroskan Ascent dispensers allow applications that require measurement immediately after reagent addition.



Application areas of the Fluoroskan Ascent

- Ca²⁺ flux assays
- Cell proliferation
- Cytotoxicity
- Multi-drug resistance
- Cell adhesion
- DNA quantitation
- Reporter gene assays
- Hybridization assays
- Quantitation of PCR products
- FRET assays
- Molecular beacon assays
- Immunoassays
- Enzyme activity
- Neonatology
- Bacterial quantitation
- Phagocytosis
- Oligonucleotide assays**)

