

The system that makes a science out of flexibility.



revvity

MicroBeta²® Plate Counter
Advanced capabilities for radiometric
and luminescence detection

Easy as putting two and two together.

The sensitivity, flexibility – and results – you can rely on

Whether you're working with kinases, reporter gene assays, or traditional liquid scintillation counting, the MicroBeta² delivers superior sensitivity and performance for all the radiometric and luminescence applications you depend on.

MicroBeta²: higher efficiency, better sensitivity

The MicroBeta² system provides coincidence counting, a unique patented detector configuration with two photomultiplier tubes that detect the signal simultaneously. This configuration ensures high efficiency and extremely low background for a variety of radionuclides.

Luminescence detection is conducted using the single photon counting method to achieve the lowest possible background and good counting efficiency for greater sensitivity.

Time-resolved Liquid Scintillation Counting (TR-LSC) is one of the key features of the MicroBeta² platform. The patented TR-LSC counting mode delivers improved counting performance for opaque plates where traditional coincidence counting isn't possible. TR-LSC mode also offers great performance when combined with UniFilter[®] plates and LumaPlates[®].

- Availability in 1-, 2-, 6-, or 12-detector configurations: multiple detectors can be used simultaneously to maximize throughput
- Plate ID Barcode Reader: standard on 6- and 12-detector configurations, optional on 1- and 2-detector configurations
- 16-plate capacity or robot-loading interface
- Support of up to 384-well plates
- Real-time kinetic data acquisition and display
- Coincidence circuitry for plate based classic liquid scintillation counter only

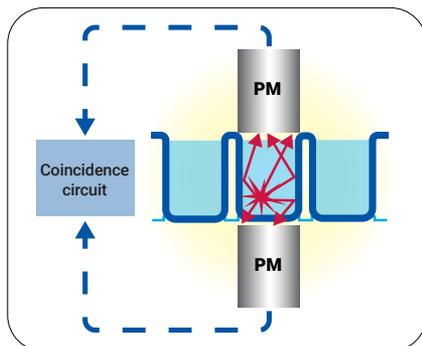


Diagram of Coincidence Count Mode.

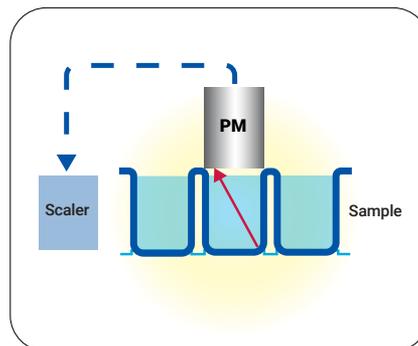


Diagram of Luminescence Count Mode

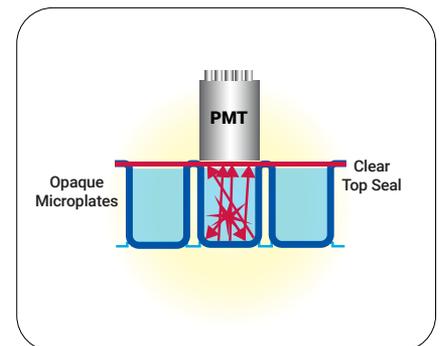


Diagram of TopRead Count Mode

Choose the format that best suits your application

All the consumables and peripherals to help you get the results you've been looking for:

- Microplates in 24-, 96-, and 384-well formats; rigid opaque plates for luminescence assays; and isoplates and flexible plates for liquid scintillation counting with cocktails
- Filter plates, LumaPlate and more
- Choose the right filter for your assay from different filter plates like UniFilter plates, or MicroBeta²-specific filtermats
- Scale down your vial counting assays with LSC minivials (4 mL) to improve throughput
- Eppendorf[®] microtubes up to 2 mL

All MicroBeta² plate counters are manufactured according to ISO 13485 and ISO 9001 quality management systems.

More assays than ever before – from one powerful system

One system, and so many assays to choose from:

- **Advanced Detection** - enables detection of beta and gamma isotopes, as well as glow luminescence
- **Filtration-based receptor binding assays** - deliver utmost sensitivity using either UniFilter plates or MicroBeta² filtermats
- **Solid-phase homogeneous assays** - MicroBeta² for best-in-class performance in all solid scintillation assays, including bead-based scintillation proximity assays
- **Scintillation proximity assay (SPA)** - The MicroBeta², with its patented (ParaLux) count mode, is uniquely suited for SPA assays. With their reduced sample handling, by eliminating the need for any separation processes, samples can be heavily quenched. ParaLux can increase the counting efficiency of these heavily colored samples by as much as 300%.
- **Cell proliferation** - MicroBeta², the perfect choice for analyzing cell proliferation through filter-based ³H-labeled thymidine uptake
- **Cell cytotoxicity** - ⁵¹Cr release assays for cell cytotoxicity using LumaPlate technology or liquid scintillation counting (LSC)
- **Reporter gene assays** - glow luminescence capabilities for dual reporter gene assays using luciferase and beta lactamase
- **Metabolic studies** - HPLC fraction measurements using LumaPlate technology or traditional cocktail-based approaches in 4-mL tubes
- **Liquid scintillation counting** - scaled down traditional vial-based liquid scintillation counting assays to microplates
- **Wipe test** - no need to reserve a second counter for monitoring contamination in your laboratory
- **More options** - luminometric ELISAs, kinase assays, radioimmunoassays (RIAs), and many others

Your entry point to a comprehensive, end-to-end solution

Best of all, we deliver an unmatched portfolio of products, including cellular assays, radioisotopic technologies, cellular screening and imaging, state-of-the-art detection instrumentation, and automated liquid handling – plus a complete menu of services for assay development, integration solutions, and much more.



Optional additions

For high throughput labs, there is an optional integration with the Twister™ III. The addition of the Twister allows automated plate loading for unattended reading of up to 78 plates with the 3 stackers option or 156 plates with the 6 stackers option. Twister can be integrated with two MicroBeta² instruments for double throughput. Supports 96 or 384 well formats.

Our compact system harvests and washes all 96 or 24 samples simultaneously from shallow- or deepwell microplates, ideal for integration with a MicroBeta². The FilterMate Harvester is available in several versatile configurations. MicroBeta² filtermats are available in 96- and 24-well formats in a variety of materials. The upper and lower wash aspirate heads are specially designed to ensure proper alignment of the filter material without guessing. The FilterMate Harvester can be configured for MicroBeta² at the factory or in your laboratory with an easy-to-use conversion kit.

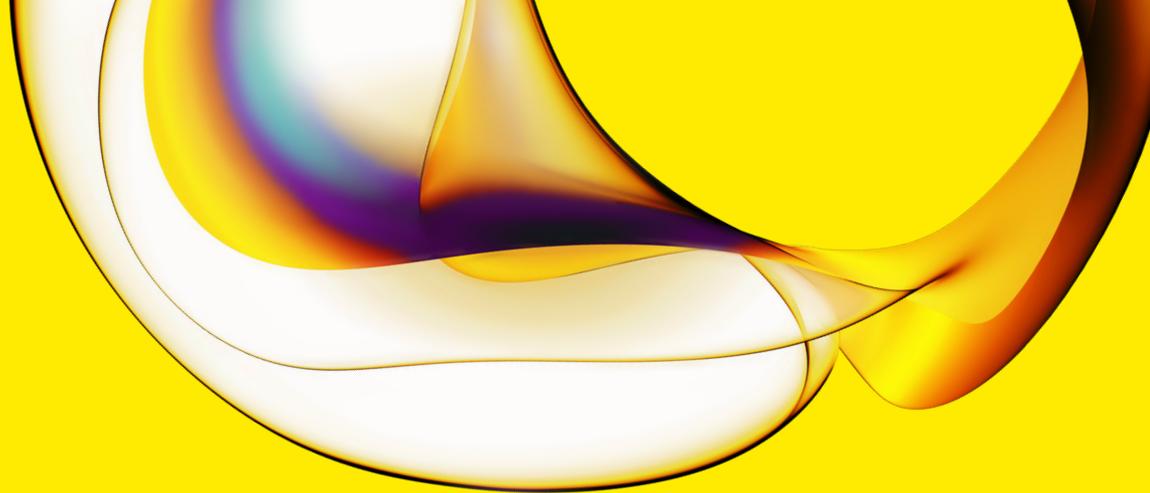


MicroBeta²

Twister™ III



FilterMate Harvester



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