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Calibration Slides

- for the routine calibration of fluorescence microscopes
- for automated fluorescence imaging systems, e.g. scanning cytometry

The slides are prepared by mounting statistically distributed monodisperse microbeads that contain ultra-stable fluorophores onto standard glass slides. The beads are protected from mechanical stress with a coverglass.

Available for three different emission wavelengths



Other wavelengths are available on request. The bead size and fluorescence intensity can be tailored to your read-out system.

Characteristics

- monolayer of fluorescent beads on glass slides
- high photostability (see below)
- homogeneous particle size and fluorescence intensity
- single particles, no particle aggregates and homogeneous, statistical particle distribution
- excellent slide-to-slide and batch-to-batch reproducibility, CV< 3%
- long term stability: less than 0.5 % decrease in fluorescence intensity after 1 month at 37°C
- standard size: 75 x 25 x 1 mm glass slides, alternative formats are available upon request





Fluorescence image of a calibration slide (green channel): homogeneous particle distribution, no aggregates

Photostability: slides coated with "Green" and "Red" emitting beads were measured multiple times over a period of 50 days. The fluorescence intensity after more than 50 measurements exceeded 97 % of the initial intensity for both dyes, underlining their excellent photostability.

* Cy® is a trademark of Amersham Biosciences Corp.

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Newsletter

Exploring new surfaces

November 2014

<u>Special offer</u> Get a free sample

of our

30-Ероху

96-well plates



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Problems binding your biomolecules onto your ELISA-plate? Too much background signal in your microarray?

Try out our new 3D-Epoxy and 3D-NHS functionalized microplates for:

- covalent immobilization of biomolecules
 - especially if passive/adsorptive binding does not work
- printed microarrays in plates
- immunoassays



3D-Epoxy

Antifouling Matrix

Epoxy rings can easily react with nucleophiles e.g. amines, hydrazines, thiols, hydroxides and carboxyl groups of biomolecules to form a covalent bond with the surface.

3D-NHS-Ester



The NHS-ester (N-Hydroxy-Succinimide) reacts immediately with the NH₂-terminus of biochemical species to form a covalent bond with the surface.

3D-NHS-Matrix

• all standard formats, e.g. F-bottom, C-bottom, U-bottom, multipart plates

Antifouling Matrix

- different loadings (degree of functionalization, number of functional groups)
- different degrees of hydrophilicity

Characteristics

- branched, spacered 3-dimensional polymer, incl. antifouling matrix to avoid unspecific binding
- simple coupling chemistry
- directed immobilization possible
- economic alternative to streptavidin coated plates

ELISA application: Comparison of PolyAn 3D-surfaces with a passive/adsorptive binding surface.



Experimental:

- 1. Coating: 1 µg/ml protein (antigen).
- 2. Adding of mAb at different concentrations.
- 3. Detection of mAb with HRP conjugated detection antibody.

The required amount of added mAb is 8 times less for the 3D-NHS surface compared to passive binding surface plate when measured an OD of 1.

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