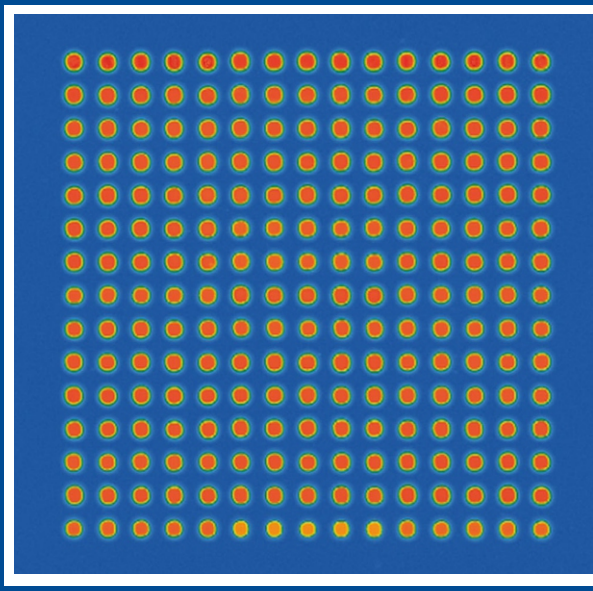
PolyAn

molecular
surface
engineering

# 表面分子工程专家

## ——生命科学研究功能化耗材



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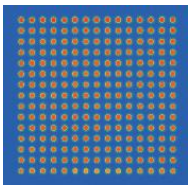
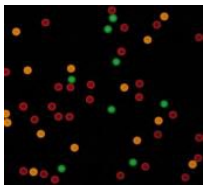
## 关于PolyAn

PolyAn是一家纳米科技公司，创始于1996年，专注于表面分子工程，是芯片领域世界领先的功能化片基生产商。PolyAn从上世纪九十年代开始为诊断和生命科学研究提供专业的耗材。产品涉及各种材质，规格和表面修饰的微阵列芯片片基和荧光微球。可为客户提供客制化的表面修饰片基。

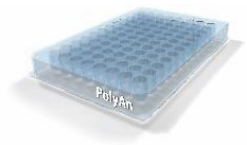
## 主要产品



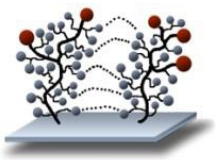
片基 & 96孔板
用于喷点微阵列



微球/微珠
用于多重微球分析




表面活化的微孔板



为OEM客户提供
表面修饰服务

## 质量管理

ISO 9001
Certified
Quality Management System
www.tuv-sud.com/ms-cert

PolyAn 对所有生产过程实施DIN EN ISO 9001质量管理体系，生产设施具备5级洁净室。

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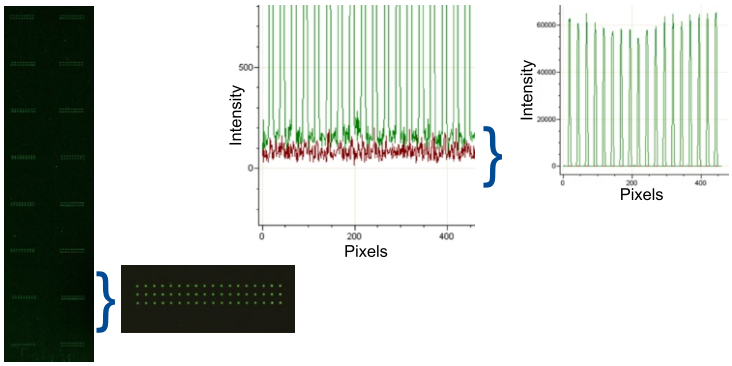
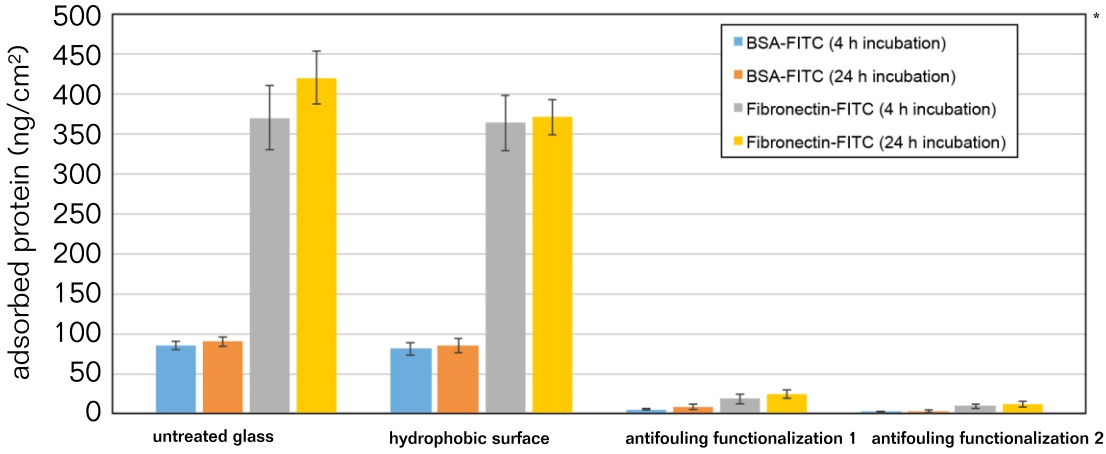
## 产品优势

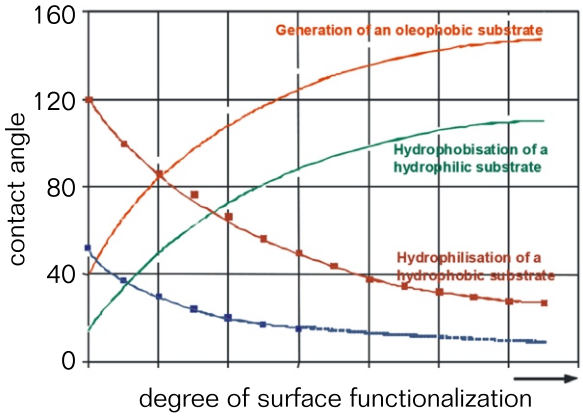


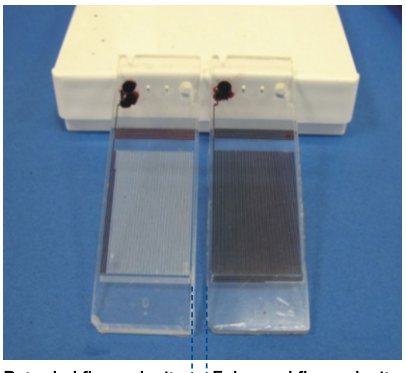

3 x 18 spots TAMRA labelled peptide, immobilized via Lys-sidechain.

**PolyAn的功能化片基具有较小的表面接触角，保证一致的喷点形态和低的点间变异。包被的防污涂层保证低背景荧光，获得更高的信噪比。**




**包被抗污涂层，减少生物污染和细胞吸附作用，更低的非特异性结合。**



Retarded flow velocity of ink in non modified channels | Enhanced flow velocity of ink in 3D hydrophilised channels

**对芯片的沟槽进行3D亲水表面处理，提高试剂的流速。**

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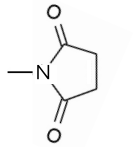
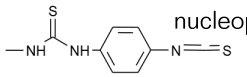
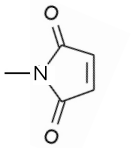
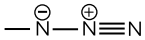
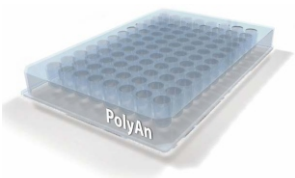
## 可供选择的活性基团

| Functional Group | | Immobilization of biochemical species containing | |
|---|---|---|---|
| NHS-activated Carboxy |  | amino groups | p.10 |
| Epoxy | | nucleophilic groups, e.g. amino or thiol or hydrazine | p. 8 |
| Amino | $-NH_2$ | activated carboxy groups, or electrostatic adsorption of negatively charged species | p. 9 |
| Aldehyde | | amino groups, hydrazine groups | p. 8 |
| PDITC activated Amino |  | nucleophilic groups, e.g. amines, hydrazines | p.13 |
| Maleimide |  | thiol groups | p.11 |
| Thiol | $-SH$ | thiols, disulfides, maleimides | p.11 |
| Azide |  | alkyne groups, DBCO groups | p.15 |
| Neutravidin, Streptavidin | | biotinylated compounds or other biotinylated species | p.12 |
| Poly-L-Lysine | | activated carboxy groups, or electrostatic adsorption of negatively charged species | p.13 |

## 不同表面修饰的片基产品

| Glass Slides & Coverslips | | Polymer Slides | 96-well Plates |
|---|---|---|---|
| 2D-Epoxy | 3D-Epoxy | 3D-Epoxy | 3D-Epoxy |
| 2D-Amine | 3D-Amine | 3D-Amine | 3D-NHS |
| 2D-Aldehyde | 3D-Carboxy | 3D-Carboxy | 3D-Amine |
| 2D-Maleimide | 3D-Aldehyde | 3D-Aldehyde | 3D-Aldehyde |
| 2D-NHS | 3D-NHS | 3D-NHS | 3D-Azide |
| 2D-Carboxy | 3D-PDITC | 3D-PDITC | 3D-Streptavidin |
| 2D-PDITC | 3D-Maleimide | 3D-Maleimide | 3D-Neutravidin |
| 2D-Azide | 3D-Thiol | 3D-Thiol | |
| 2D-Thiol | 3D-Poly-L-Lysine | 3D-Poly-L-Lysine | |
| 2D-Antifouling | 3D-Streptavidin | 3D-Streptavidin | |
| 2D-Streptavidin | 3D-Neutravidin | 3D-Neutravidin | |
| 2D-Neutravidin | 3D-Antifouling | | |



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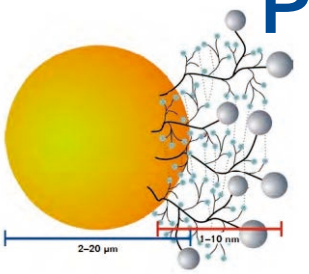
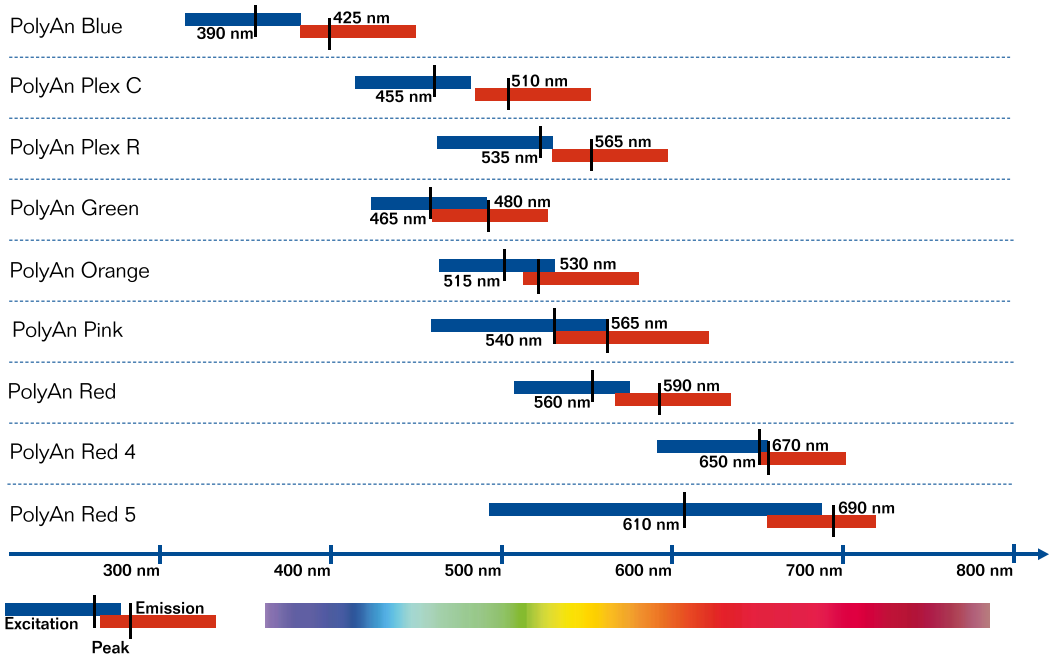
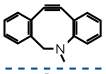
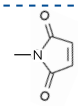
## PMMA 荧光微球产品




- PMMA（聚甲基丙烯酸甲酯）生物兼容性好，无细胞毒性
- 颗粒体积CV < 5%
- 低聚集表面处理
- 表面3D-活性基团修饰，满足各种偶联需求
- 含3D-羧基，3D-炔烃,3D-叠氮，链霉亲和素，中和亲和素，多聚赖氨酸，ProteinA/G




## 微球产品可选择的修饰基团

| Functional Group | Structure | Application examples |
|---|---|---|
| 3D-Carboxy | | … for EDC/EDAC mediated coupling of proteins or amine-terminated peptides |
| 3D-Aldehyde | | … for Amines, Hydrazines and Aminoalkoxyacetyl modified biomolecules |
| 3D-Alkyne |  | … for binding of Azide-modified biomolecules via copper-catalyzed click-chemistry |
| 3D-Azide | | … for binding of molecules via click-chemistry |
| 3D-Cyclooctine (DBCO) |  | … for binding of Azide-modified biomolecules via copper-free click-chemistry |
| 3D-Maleimide |  | … for binding of Thiol containing molecules |
| PEG-Biotin | | … for coupling of Streptavidin or Neutravidin conjugated biomolecules |
| Sreptavidin or Neutravidin | | … for coupling of Biotinylated biomolecules |
| Antibody | | … for antigen binding and detection |
| Poly-L-Lysine | | … activated Carboxy-group containing molecules, or electrostatic adsorption of negatively charged species |
| Protein A/G or Protein G | | … for binding of IgG |
| Low Aggregation | | … non-adsorbing matrix, for calibration, for controls |

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## 流式荧光微球产品

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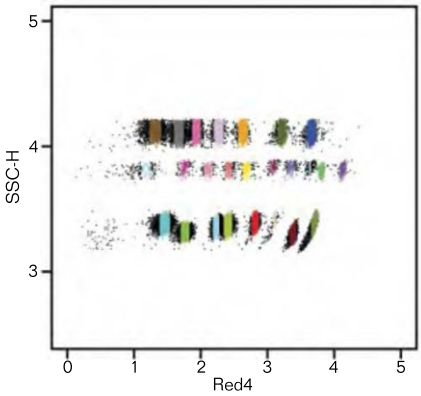
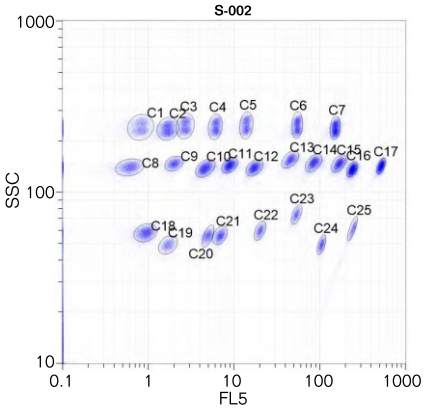



PolyAn Red4 Plex Beads: Detection of 25-plex (three sizes with 7-10 different fluorescence intensities) with BD FACSCanto II*




PolyAn Red4 Plex Beads: Detection of 25-plex with Quantum P Flow Cytometer**

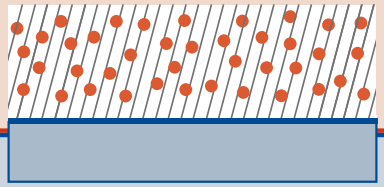
**PolyAn Plex Bead kits为流式细胞仪提供多因子检测解决方案。**
**通过Beads 自身不同的荧光强度和三种不同的粒径，实现25重多因子检测。**

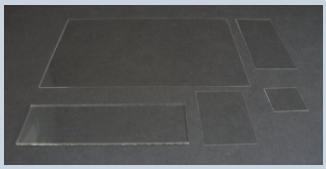
## 定制个性化的表面功能化解决方案

**作为表面分子工程服务的一部分，我们为满足独特的表面功能化需求提供个性化服务。**

**功能化表面**

- 2D-/3D-活性表面
- 生物分子包被
- 吸附性表面
- 抗污表面
- 低细胞黏附
- 亲水性表面





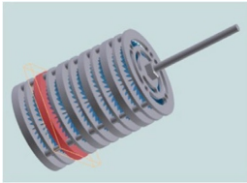
**玻璃载玻片、盖玻片**
多种厚度和尺寸可选

**多孔板或其他三维结构的片基**

**塑料支持材料**
如PE、PP、PES、PS、PVDF、PMMA、COC和COP

**包被金属和金属氧化物**
如金、银、铂、钯、铬等

**量产**
从测试样品到规模量产，并提供生产外包服务。
Outsourcing of production



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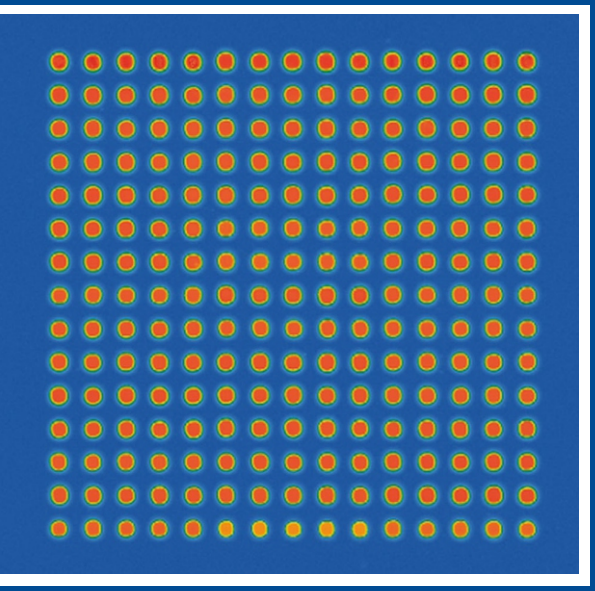


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