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# **TECHNICAL DATA SHEET 788**

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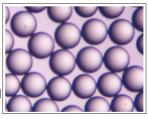
# **Polybead® Microspheres**

### DESCRIPTION

Polybead<sup>®</sup> polystyrene microspheres are supplied in sizes with nominal diameters from 50nm to 90µm. Our experienced chemists control the synthesis to provide precise monodisperse particle size distributions. These particles contain a slight anionic charge from sulfate ester. Diameters 4.5µm and larger are crosslinked with divinylbenzene (DVB).

Most of our Polybead® microspheres are packaged in an economical

2.5% solids (w/v) aqueous suspension with minimal surfactant in the final preparation. Non-functionalized Polybead<sup>®</sup> microspheres are ideally suited for protein binding using passive adsorption techniques, and functionalized versions are available for covalent binding. (See Related Technical Data Sheets listing.)



Polybead<sup>®</sup> microspheres are also available in a dry form. Our freeze drying technique reduces the aggregation usually associated with dried beads. Dry material allows for the buffer of choice to be easily added.

For those who are new to Polybead<sup>®</sup> microspheres or simply prefer the convenience of a kit, we offer three sampler kits to get you started.

## **CHARACTERISTICS**

| Mean Diameter:            | 50nm - 90µm                                  |
|---------------------------|--|
| Particle Concentration:   | 2.5% solids (w/v), ~25mg/ml; some diameters  |
|                           | available dry.                               |
| Coefficient of Variation: | 2–10% for most products; see catalog or      |
|                           | website for specification by catalog number. |

#### **RELATED TECHNICAL DATA SHEETS**

- 1. TDS 238 Polystyrene Microspheres: Frequently Asked Questions
- 2. TDS 238C Covalent Coupling of Proteins to Carboxylated Polystyrene Microparticles by the "Carbodiimide" Method
- 3. TDS 238D Covalent Coupling of Proteins to Amino and Blue Dyed Polystyrene Microparticles by the "Glutaraldehyde" Method
- 4. TDS 238E Protocol for Adsorbing Proteins on Polystyrene Microparticles
- 5. TDS 238G Protocol for Glutaraldehyde Kit (for use with Amino and Blue Dyed Beads)
- 6. TDS 431 Fluoresbrite® Microparticles
- 7. TDS 808 Polybead® Dyed Microspheres

#### **STORAGE AND STABILITY**

Store at 4°C. Freezing may result in irreversible aggregation and loss of binding activity.

These products are for research use only and are not intended for use in humans or for *in vitro* diagnostic use.

Should any of our materials fail to perform to our specifications, we will be pleased to provide replacements or return the purchase price. We solicit your inquiries concerning all needs for life sciences work. The information given in this bulletin is to the best of our knowledge accurate, but no warranty is expressed or implied. It is the user's responsibility to determine the suitability for their own use of the products described herein, and since conditions of use are beyond our control, we disclaim all liability with respect to the use of any material supplied by us. Nothing contained herein shall be construed as a recommendation to use any product or to practice any process in violation of any law or any government regulation.

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#### **ORDERING INFORMATION**

| UNDENING               |  |                |
|------------------------|--|----------------|
| Cat. #                 | Description nominal diameter / mean diameter range   | Size           |
| 08691-10               | Polybead <sup>®</sup> Microspheres,<br><i>0.05µm / 0.036-0.064µm</i>   | 10ml           |
| 00876-15               | Polybead® Microspheres,<br>0.10μm / 0.079-0.121μm  | 15ml           |
| 07304-15               | Polybead <sup>®</sup> Microspheres,  | 15ml           |
| 07306-15               | <i>0.20µm / 0.180-0.220µm</i><br>Polybead® Microspheres,   | 15ml           |
| 07307-15               | <i>0.35µm / 0.315-0.385µm</i><br>Polybead® Microspheres,   | 15ml           |
| 07309-15               | 0.50µm / 0.450-0.550µm<br>Polybead® Microspheres,  | 15ml           |
| 07310-15               | 0.75µm / 0.675-0.825µm<br>Polybead® Microspheres,  | 15ml           |
| 17133-15               | <i>1.00µm / 0.90-1.10µm</i><br>Polybead® Microspheres,   | 15ml           |
| 19814-15               | <i>1.50µm / 1.35-1.65µm</i><br>Polybead® Microspheres,   | 15ml           |
| 17134-15               | <i>2.00μm / 1.80-2.20μm</i><br>Polybead® Microspheres,   | 15ml           |
| 17135-5                | <i>3.00μm / 3.00-3.30μm</i><br>Polybead® Microspheres,   | 5ml            |
| 07312-5                | <i>4.50μm / 4.05-4.95μm</i><br>Polybead® Microspheres,   | 5ml            |
| 17136-5                | <i>6.00μm / 5.40-6.60μm</i><br>Polybead® Microspheres,   | 5ml            |
| 18328-5                | <i>10.0µm / 9.0-11.0µm</i><br>Polybead® Microspheres,  | 5ml            |
| 18329-5                | <i>15.0µm / 13.5-16.5µm</i><br>Polybead® Microspheres,   | 5ml            |
| 07313-5                | 20.0μm / 18.0-22.0μm<br>Polybead <sup>®</sup> Microspheres,  | 5ml            |
|                        | 25.0μm / 22.5-27.5μm   |                |
| 07314-5                | Polybead <sup>®</sup> Microspheres,<br>45.0µm / 40.5-49.5µm  | 5ml            |
| 24049-5                | Polybead <sup>®</sup> Microspheres,<br>75.0μm / 67.5-82.5μm  | 5ml            |
| 07315-5                | Polybead® Microspheres,<br>90.0μm / 81.0-99.0μm  | 5ml            |
| 19518-500              | Polybead® Microspheres, Dry Form <i>1.00µm</i>   | 500mg          |
| 19519-500<br>19520-500 | Polybead <sup>®</sup> Microspheres, Dry Form <i>1.50µm</i><br>Polybead <sup>®</sup> Microspheres, Dry Form <i>3.00µm</i> | 500mg<br>500mg |
| 19822-1                | Polybead® Sampler Kit I  | 1 kit          |
| 21756-1                | ( <i>0.5µm, 0.75µm, 1.0µm, 2.0µm, 3.0µm</i> )<br>Polybead® Sampler Kit II  | 1 kit          |
| 16905-1                | (0.1µm, 0.2µm, 0.5µm, 1.0µm)<br>Polybead® Sampler Kit III<br>(0.05чт, 0.3чт, 0.5чт, 1.0чт, 15.0чт,                       | 1 kit          |
|                        | (0.05µт, 0.2µт, 0.5µт, 1.0µт, 45.0µт,<br>90.0µт)   |                |

## **TO ORDER**

| In The U.S. Call: | 1(800) 523-2575 • (215) 343-6484 |
|-------------------|----------------------------------|
| In The U.S. Fax:  | 1(800) 343-3291 • (215) 343-0214 |
| In Germany Call:  | +(49) 06201-845200               |
| In Germany Fax:   | +(49) 06201-8452020              |
| In Asia Call:     | (886) 2 8712 0600                |
| In Asia Fax:      | (886) 2 8712 2677                |

Order online anytime at www.polysciences.com

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