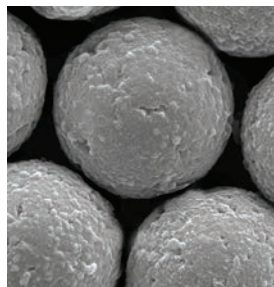
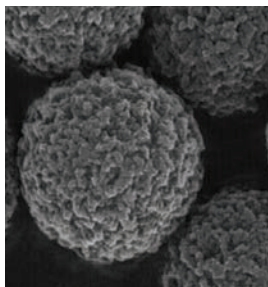


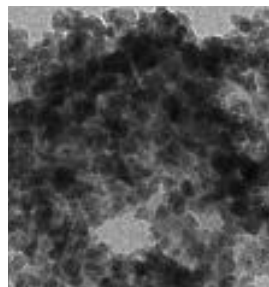
Magnefy™



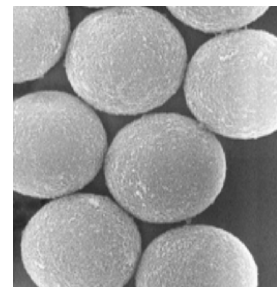
ProMag® HP (High Performance)



ProMag®



BioMag®



COMPEL™

## BENEFITS

Superparamagnetic particles have been utilized extensively in diagnostics and other research applications for the purification of cells and biomolecules, such as antibodies, nucleic acids, and polypeptides. They confer a number of benefits, including ease of separation and suitability for automation. When coated with ligand, magnetic microspheres are ideal for the efficient capture and separation of target. Unwanted sample constituents may be washed away following a simple magnetic separation step.

Bangs Laboratories' collection of superparamagnetic microparticles allow us to uniquely address a wide range of applications in the life sciences, from cell separations, antibody isolation, mRNA purification, bioassays, and immunoassays to suspension arrays and flow cytometry.

### Magnefy™ (nominal values)

**Diameter:** 1µm  
**Matrix:** Polymer  
**Versions:** COOH

The newest addition to our family of magnetic particles, Magnefy™, offer an additional performance-driven solid phase for magnetic particle-based assays and isolations, particularly SPRI-based total DNA isolation. Magnefy™ are encapsulated core-shell ~1µm magnetic particles with a carboxylate-modified coating that offers high surface area and high surface titer with a rapid uniform magnetic response profile. Magnefy™ are scalable and automation-friendly. (See PDS 756 for details)

### ProMag HP® (nominal values)

**Diameter:** 3µm  
**Matrix:** Polymer  
**Versions:** COOH, Streptavidin  
**Density (g/cm³):** 1.4 (3µm)  
**Shape:** Spherical

ProMag® HP (High Performance) is our new generation of 3µm magnetic particles that has been meticulously engineered for use in assay development. ProMag® HP bring together the superior handling and fast separation rates of ProMag® with a highly optimized composition to ensure the lowest autosignal, particularly with respect to chemiluminescence and exposed iron. (See PDS 743 for details)

### ProMag® (nominal values)

**Diameters:** 1µm, 3µm  
**Matrix:** Polymer  
**Versions:** COOH, Streptavidin, Bind-IT™ (3µm), Protein G (3µm)  
**Density (g/cm³):** 1.8 or 1.6\* (diameter dependent)  
**Shape:** Spherical  
ProMag® 1µm and 3µm magnetic

ProMag® 1µm and 3µm magnetic microspheres are available with carboxyl, streptavidin, amine, or preactivated Bind-IT™ surface functionalities. ProMag® support diagnostic applications that require highly uniform, high-binding beads and fast separation times. They have a proprietary surface to reduce nonspecific binding in protein-based systems, and for superior handling without the use of surfactant.

These high-binding beads are suitable for use across a range of research and diagnostic applications, whether you're working at laboratory scale or have the more stringent requirements of high throughput applications. For our OEM customers, ProMag® will offer superior performance throughout the assay development process, and in your customer's hands. (See PDS 715 for details)

**BioMag®** (*nominal values*)**Diameters:** ~1.5µm**Matrix:** Silanized iron oxide**Versions:** COOH, NH<sub>2</sub>, Affinity Binding Proteins, Secondary Antibodies, Anti-CD Antibodies**Density (g/cm<sup>3</sup>):** 2.5 or 1.6\***Shape:** Irregular, cluster

BioMag® and BioMag®Plus are ~1.5µm high-performance superparamagnetic microparticles widely used for the efficient separation of cells and purification of biomolecules. The irregular morphology of these silanized iron oxide clusters provides a much greater surface area than similarly-sized spherical particles, resulting in high binding capacities and efficient capture of target with conservative use of particles. The high iron oxide content (>90%) allows for rapid and efficient magnetic separations, even from difficult, e.g. highly viscous, samples.

We offer carboxyl and amine versions, in addition to oligo(dT) and a variety of primary and secondary antibody and other affinity coatings, including proteins A and G and lectins.

**COMPEL™** (*nominal values*)**Diameters:** 3, 6, and 8µm**Matrix:** Polymer**Versions:** COOH, Streptavidin, Fluorescent**Density (g/cm<sup>3</sup>):** 1.1 - 1.2\*  
(diameter dependent)**Shape:** Spherical

As highly uniform microspheres in diameters of 3, 6, and 8µm, COMPEL™ are ideal for applications in flow cytometry. These beads contain a highly optimized amount of magnetite to minimize settling during incubation steps, while ensuring rapid separation times. COMPEL™ beads are ideal for applications that demand uniform bead response, such as miniaturized bioassays and separations. The polymer matrix is conducive to dyeing, and standard blue, green, and red fluorescent versions are available. In fact, we like to dye them so well that we used them to develop QuantumPlex™MM, our magnetic bead platform for suspension arrays.