

TECHNICAL DATA SHEET 855

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Magnetic Particles

ProMag™ and BioMag®

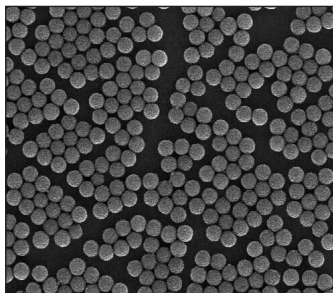
Superparamagnetic particles have been utilized extensively in diagnostics and other research applications for the purification of cells and biomolecules, such as antibodies, nucleic acids, and polypeptides. They confer a number of benefits, including ease of separation and suitability for automation. When coated with recognition molecules, 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.

Our superparamagnetic microparticle product lines allow us to uniquely address a wide range of applications in the life sciences, from cell separations and immunoassays to suspension arrays and flow cytometry.

- Antibody Isolation
- Bioassays
- Cell Separation
- mRNA Purification
- Suspension Arrays

PROMAG™

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



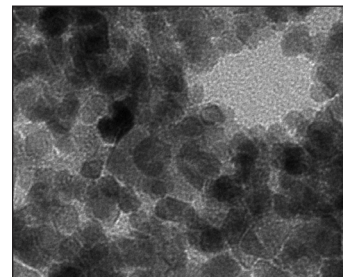
- Flexible silanization chemistries
- Unique refractive index and density
- Low autofluorescence
- Low nonspecific binding of many biomolecules
- Hydrophilicity
- Ease of handling

BIOMAG®

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.



MAGNETIC PARTICLES AT-A-GLANCE (nominal values)

ProMag™

Diameters:	1 and 3µm
Matrix:	Polymer
Versions:	COOH; Streptavidin
Density (g/cm ³):	1.33 (1µm); 1.22 (3µm)
Shape:	Spherical

BioMag®

Diameters:	~1.5µm
Matrix:	Silanized iron oxide
Versions:	COOH; NH ₂ ; Affinity binding proteins; Secondary antibodies; Anti-CD antibodies
Density (g/cm ³):	2.5
Shape:	Irregular, cluster

HANDLING AND STORAGE

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

Safety Some of these particle suspensions contain sodium azide. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Upon disposal of material, flush with a large volume of water to prevent azide accumulation. Please consult the Material Safety Data Sheet for more information.

This product is for research use only and is not intended for use in humans or for *in vitro* diagnostic use.