

## MonoMag Carboxyl Beads

### DESCRIPTION

Ocean NanoTech's MonoMag carboxylic acid functionalized magnetic beads are the uniform, superparamagnetic beads with a layer of biocompatible polymer coating. The outer layer of our biocompatible coating makes them an ideal platform for ligands immobilization with significantly low non-specific binding.

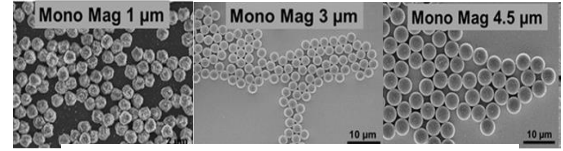


Figure 1. TEM Images of MonoMag Beads

### FEATURES

- **Significantly low non-specific binding:** Proprietary biocompatible polymer coating.
- **High binding capacity:** High density of functional groups to ensure high binding capacity.
- **High iron content:** 30% - 60% depending on the size.
- **Size flexibility:** 1 μm – 4.5 μm
- **Narrow size distribution:** CV ≤ 5%.
- **Convenient one-step or two-step coupling.**

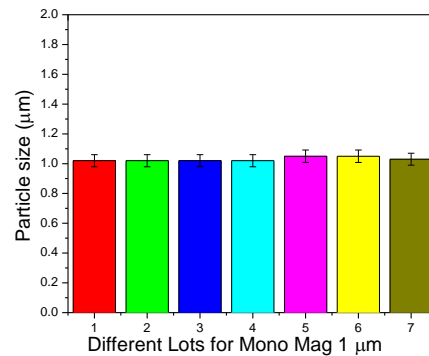


Figure 2: Size variation of 7 different lots of MonoMag 1 μm

### SPECIFICATION

- **Concentration:** 10 mg/mL (1 μm); 30 mg/mL (3 and 4.5 μm)
- **Storage buffer:** DI water, 0.05% Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, 0.01% tween 20
- **Size:** 1 μm – 4.5 μm

### AVAILABLE PRODUCTS

Catalog	Product Description	Size	Unit size
MC1000-02	MonoMag Carboxyl Beads	1 μm	2 mL
MC1000-10	MonoMag Carboxyl Beads	1 μm	10 mL
MC1000-50	MonoMag Carboxyl Beads	1 μm	50 mL
MC3000-02	MonoMag Carboxyl Beads	3 μm	2 mL
MC3000-10	MonoMag Carboxyl Beads	3 μm	10 mL
MC3000-50	MonoMag Carboxyl Beads	3 μm	50 mL
MC4500-02	MonoMag Carboxyl Beads	4.5 μm	2 mL
MC4500-10	MonoMag Carboxyl Beads	4.5 μm	10 mL
MC4500-50	MonoMag Carboxyl Beads	4.5 μm	50 mL

### Difference between MonoMag 1 μm and HiSur Mag 1 μm

- MonoMag has a layer of coating to isolate the iron oxide from the outer environment. While HiSur does not.
- MonoMag has narrower size distribution than HiSur.
- The surface area of HiSur is around four times larger than that of the same weight of MonoMag. Therefore, Hi-sur Mag has higher binding capacity than MonoMag.

### STORAGE & USAGE

Store at 2-8°C. Freezing of particles may result in irreversible aggregation and loss of binding activity.

Ensure the suspension is well dispersed prior to use, bath sonication is strongly recommended, as particles are expected to settle during storage.