



DESCRIPTION

Superparamagnetic particles have been utilized extensively in diagnostics and other research applications for the capture of biomolecules and cells. They confer a number of benefits, including ease of separation and suitability for automation. When coated with recognition molecules, magnetic microspheres are useful for the capture and separation of target. Unwanted sample constituents may be washed away following a simple magnetic separation step. Highly efficient magnetic separation eliminates potential interfering molecules, allowing sensitive detection of target.

COMPEL™ microspheres are highly uniform superparamagnetic microspheres, ideal for applications that demand uniform bead response, such as miniaturized bioassays and separations. Composed of magnetite dispersed in a polymer matrix, COMPEL™ particles are overcoated with functional polymer for the encapsulation of magnetite and introduction of reactive groups. The result is a highly-functionalized bead with a density close to that of other non-magnetic, polymeric beads. COMPEL™ magnetic particles respond rapidly and efficiently to an applied

magnetic field, although they will not settle as rapidly as traditional, heavy magnetic particles. COMPEL™ are offered in diameters of approximately 3µm, 6µm, and 8µm with measured CVs of ≤5%. The polymer matrix is conducive to dyeing, and fluorescent versions are available.

CHARACTERISTICS

Composition:	Polymer
Mean Diameter:	~3µm, 6µm, and 8µm
Surface Groups:	COOH, Streptavidin
Density:	~1.1-1.2 g/cm ³ , depending on diameter

PROCEDURE

Researchers are advised to optimize the use of particles in any application. For a detailed coating protocol, see the Product Data Sheet for our *PolyLink Protein Coupling Kit (PDS 644)*. For detailed covalent coupling procedures, please see *TechNote 205, Covalent Coupling*. We recommend that rare earth magnetic separators be used for magnetic separations. Mixing should be performed using rotation, etc. Harsher treatments such as sonication and vortexing should be avoided.

STORAGE AND STABILITY

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

SAFETY

This particle suspension contains 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 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.

ORDERING INFORMATION

Cat. Number	Description	Cat. Number	Description
UMGB001	3µm COMPEL Glacial Blue	UMC3001	COMPEL Magnetic, COOH Modified, 3µm
UMGB002	6µm COMPEL Glacial Blue	UMC3002	COMPEL Magnetic, COOH Modified, 6µm
UMGB003	8µm COMPEL Glacial Blue	UMC4001	COMPEL Magnetic, COOH Modified, 8µm
UMDG001	3µm COMPEL Dragon Green		
UMDG002	6µm COMPEL Dragon Green		
UMDG003	8µm COMPEL Dragon Green		
UMEG001	3µm COMPEL Envy Green		
UMFR001	3µm COMPEL Flash Red		
UMFR002	6µm COMPEL Flash Red		
UMFR003	8µm COMPEL Flash Red		
UMC0100	3µm COMPEL Steptavidin		
UMC0101	6µm COMPEL Steptavidin		
UMC0102	8µm COMPEL Steptavidin		

COOH Modified COMPEL units are 0.25g, 0.5g, 1.0g, 1.5g, or 5.0g

RELATED PRODUCT

Cat. Number	Description	Size
PL01N	PolyLink Protein Coupling Kit	1 kit
LS001	1.5mL Magnetic Separator	1 each
MS001	BioMag® MultiSep Magnetic Separator	1 each

Order online anytime at www.bangslabs.com.

Available in 1mL, 5mL, 10mL, or 100mL volumes.