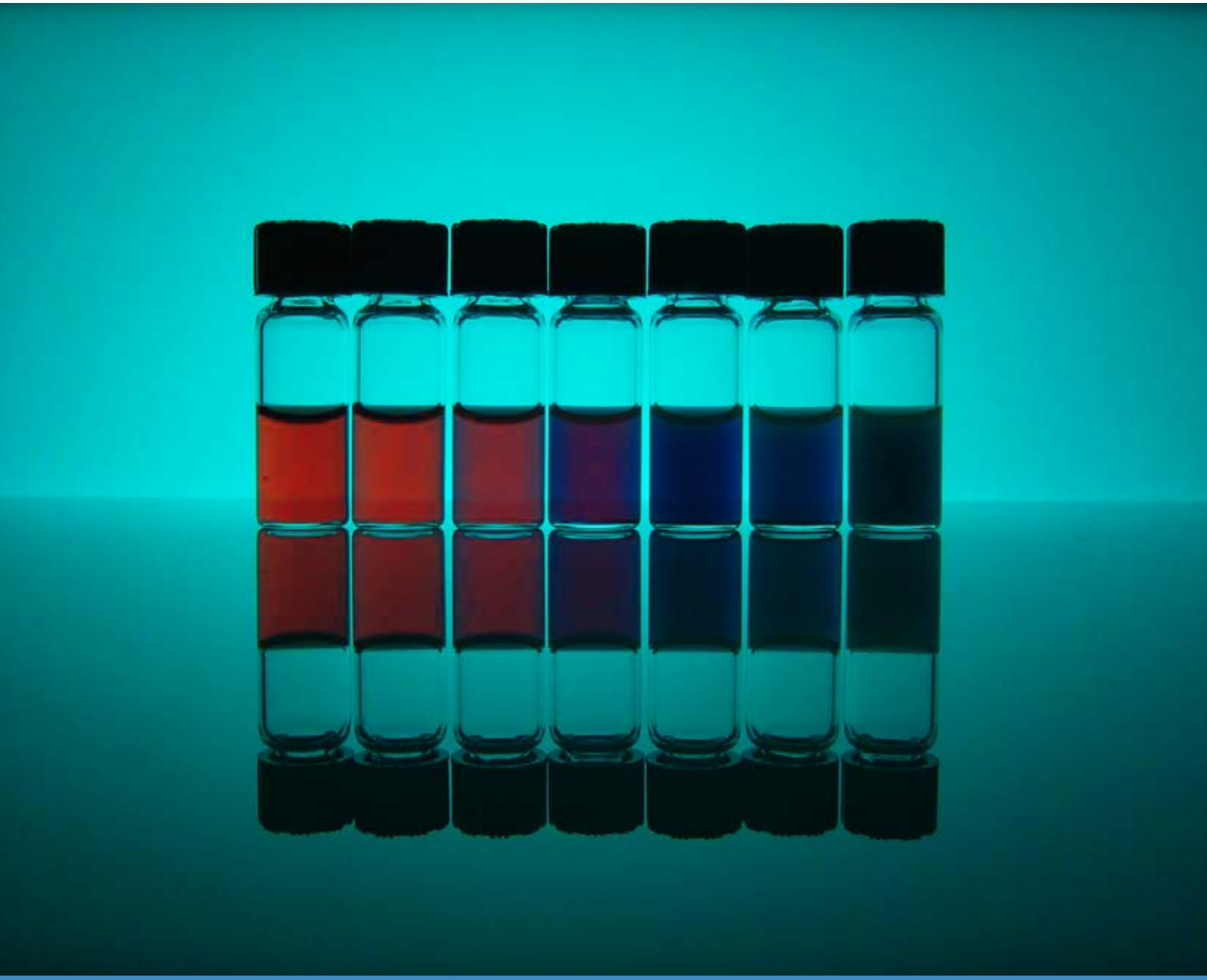
Luna Nanotech

Nano for Bio



NanoVIVO Nanoparticles Products

Product Catalog 2023

Contents

About Us

Luna Nanotech is a Canadian manufacturing company providing nanotechnology powered biotech tools for the fields of biomedical research and infectious pathogen diagnostics. We offer a range of products that include molecular biology kits and components for manual and automated high-throughput extraction of nucleic acids from various matrices, biocompatible nanoparticles designed for *in vitro* and *in vivo* applications, magnetic beads and separators for purification of biomolecules, liquid handling solutions, as well as various laboratory consumables.

Luna Nanotech is committed to bringing our clients excellence in product quality at affordable prices. With vigorous R&D and quality control we ensure that our products perform at the level equal to or exceeding the functionality and quality offered by our competitors. Luna Nanotech is always carrying out active R&D to develop new innovative products and ensure that we remain one of the leaders in the field of biomedical nanotechnology.

Our core team of founders and scientists have more than 20 years of experience in the fields of nanomaterial development and biomedical research. We use our extensive expertise to ensure the quality and reproducibility of molecular biology and nanoparticle products offered by Luna Nanotech. Our client base includes North American and international research laboratories in academic institutions such as Harvard, Stanford, and Oxford Universities, as well as biotechnology companies including Illumina, 10X Genomics, Spark Therapeutics, and Singular Genomics.

Spherical Gold Nanoparticles

General Information

Gold nanoparticles are widely used in biomedical research due to their reproducible synthesis, low batch-to-batch variability, high monodispersity and ease of conjugation to biological ligands. **NanoVIVO**™ biocompatible gold nanoparticle line is specifically designed to minimize non-specific protein adsorption and cell interactions and to maximize ***in vivo*** blood half-life, making these products optimal for both ***in vitro*** and ***in vivo*** biological research. The line includes particles ranging from 4 nm to 200 nm in diameter and a variety of surface chemistries. Large light interaction cross section and high electron density makes gold nanoparticles ideal contrast agents for colorimetric assays, dark field imaging, electron microscopy.

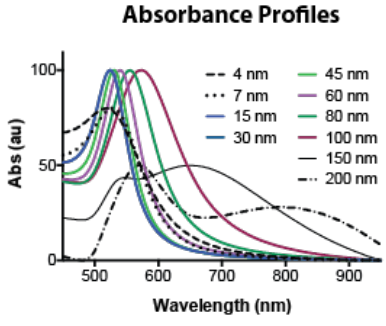
High monodispersity and precise control of nanoparticle size make gold nanoparticles useful tools to study the effects of size and surface chemistry on nanoparticle drug delivery. The ability to introduce specific targeting ligands onto the gold nanoparticle surface allows the distribution of nanoparticles targeted to a specific physiological site to be directly compared to the distribution of control nanoparticles lacking the targeting ligand. Gold content can be precisely measured using inductive coupled plasma (ICP) technique, allowing exact quantification of nanoparticle accumulation in different cells ***in vitro*** or organs ***in vivo***. Gold nanoparticles can also be fluorescently labeled to be tracked by fluorescence imaging and used as contrast probes for fluorescence microscopy, flow cytometry, or whole-animal imaging.

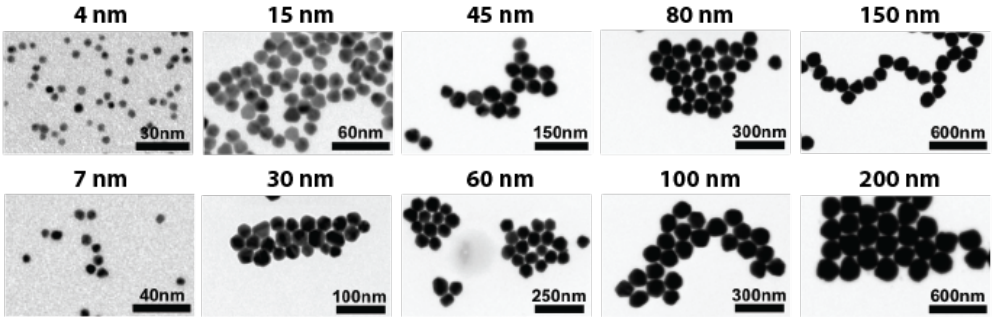
Features

- A range of available diameters: 4 nm to 200 nm
- High monodispersity (PDI < 0.1) and circularity (> 0.9)
- Range of surface passivating polyethylene glycol (PEG) sizes available (1 kDa to 10 kDa)
- Simple, well characterized surface functionalization
- Stable in high salt conditions
- Resistant to non-specific protein adsorption
- Long ***in vivo*** blood half-lives
- ***In vitro*** and ***in vivo*** targeting

Applications

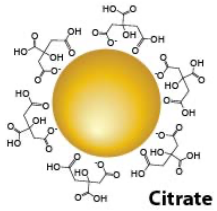
- Colorimetric probes for lateral flow assays
- Fluorescently labeled probes for ***in vitro*** and ***in vivo*** fluorescence microscopy, flow cytometry, immunoassays and whole-animal imaging
- Passively and actively targeted probes for ***in vitro*** and ***in vivo*** cell and organ targeting and biodistribution studies
- Nanoparticle labeling probes for electron microscopy
- Contrast agents for dark field microscopy
- Nanoparticle scaffolds for DNA nanoparticle assembly





Spherical Gold Nanoparticles

Surface Chemistry: Citrate Coated



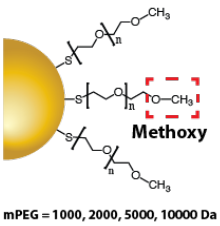
Specifications

- As-synthesized nanoparticles stabilized with citrate surfactant
- Ready for functionalization with thiol containing molecules
- Core diameter: 4 nm – 200 nm
- Polydispersity Index (***PDI***): < 0.1
- Absorbance peak: 520 – 800 nm
- Shelf life: > 1 year (4°C storage)
- Supplied as liquid suspension in water with 0.01% (w/v) Tween-20

Catalog Number	Product Description		Conc.	Scale
GNP-CIT-4-*Y*	4 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-7-*Y*	7 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-15-*Y*	15 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-30-*Y*	30 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-45-*Y*	45 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-60-*Y*	60 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-80-*Y*	80 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-100-*Y*	100 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-150-*Y*	150 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL
GNP-CIT-200-*Y*	200 nm	Citrate-Coated Gold Nanoparticles	50 OD	0.4 mL, 1 mL, 3 mL

Y = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale

Surface Chemistry: Methoxy Polyethylene Glycol (PEG)



mPEG = 1000, 2000, 5000, 10000 Da

Specifications

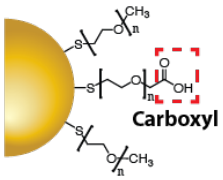
- Inert surface chemistry that is highly resistant to serum protein adsorption
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- Shelf life: > 1 year (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

Catalog Number	Product Description		PEG Size	Conc.	Scale
GNP-PEG-4-*X-Y*	4 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-7-*X-Y*	7 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-15-*X-Y*	15 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-30-*X-Y*	30 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-45-*X-Y*	45 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-60-*X-Y*	60 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-80-*X-Y*	80 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-100-*X-Y*	100 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-150-*X-Y*	150 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-PEG-200-*X-Y*	200 nm	Methoxy PEG Coated Gold Nanoparticles	1 kDa, 2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

X = '1' – 1 kDa, '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer
Y = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale

Spherical Gold Nanoparticles

Surface Chemistry: Carboxyl-terminated Polyethylene Glycol (PEG)



PEG Spacer = 2000, 5000, 10000 Da

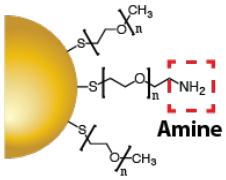
Specifications

- Can be covalently conjugated to amine-terminated molecules
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- Shelf life: > 1 year (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

Catalog Number	Product Description		PEG Size	Conc.	Scale
GNP-COOH-4-*X*-*Y*	4 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-7-*X*-*Y*	7 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-15-*X*-*Y*	15 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-30-*X*-*Y*	30 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-45-*X*-*Y*	45 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-60-*X*-*Y*	60 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-80-*X*-*Y*	80 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-100-*X*-*Y*	100 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-150-*X*-*Y*	150 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-COOH-200-*X*-*Y*	200 nm	Carboxyl-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Surface Chemistry: Amine-terminated Polyethylene Glycol (PEG)



PEG Spacer = 2000, 5000, 10000 Da

Specifications

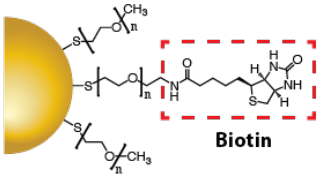
- Can be covalently conjugated to carboxyl-terminated molecules
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- Shelf life: > 1 year (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

Catalog Number	Product Description		PEG Size	Conc.	Scale
GNP-NH2-4-*X*-*Y*	4 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-7-*X*-*Y*	7 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-15-*X*-*Y*	15 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-30-*X*-*Y*	30 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-45-*X*-*Y*	45 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-60-*X*-*Y*	60 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-80-*X*-*Y*	80 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-100-*X*-*Y*	100 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-150-*X*-*Y*	150 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-NH2-200-*X*-*Y*	200 nm	Amine-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Spherical Gold Nanoparticles

Surface Chemistry: Biotin-terminated Polyethylene Glycol (PEG)



PEG Spacer = 2000, 5000, 10000 Da

Specifications

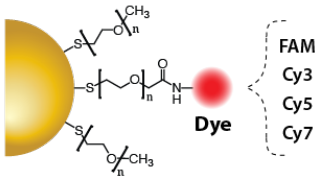
- Can be directly conjugated to streptavidin-functionalized molecules or substrate
- Core diameter: 4 nm – 200 nm
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

Catalog Number	Product Description		PEG spacer Size	Conc.	Scale
GNP-BIOT-4-*X*-*Y*	4 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-7-*X*-*Y*	7 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-15-*X*-*Y*	15 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-30-*X*-*Y*	30 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-45-*X*-*Y*	45 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-60-*X*-*Y*	60 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-80-*X*-*Y*	80 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-100-*X*-*Y*	100 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-150-*X*-*Y*	150 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-BIOT-200-*X*-*Y*	200 nm	Biotin-Coated Gold Nanoparticles	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Fluorescently Labeled Spherical Gold Nanoparticles

Surface Chemistry: Organic Dye



PEG Spacer = 5000, 10000 Da

Specifications

- Fluorescent dye labels
- 5 or 10 kDa PEG spacer stabilizes nanoparticles and prevents dye quenching
- Core diameter: 4 nm – 200 nm
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

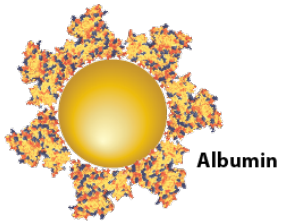
Catalog Number	Product Description		Dye Label	PEG	Conc.	Scale
GNP-DYE-4-*X*-*Y*-*D*	4 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-7-*X*-*Y*-*D*	7 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-15-*X*-*Y*-*D*	15 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-30-*X*-*Y*-*D*	30 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-45-*X*-*Y*-*D*	45 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-60-*X*-*Y*-*D*	60 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-80-*X*-*Y*-*D*	80 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-100-*X*-*Y*-*D*	100 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-150-*X*-*Y*-*D*	150 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNP-DYE-200-*X*-*Y*-*D*	200 nm	Fluorescently Labeled Gold Nanoparticles	AF488/555/647/IR750	5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Spherical Gold Nanoparticles

Protein Functionalized Spherical Gold Nanoparticles

Surface Chemistry: Albumin (Bovine, Human, Mouse, Rat)



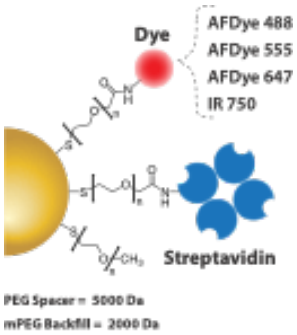
Specifications

- Albumin adsorbed through non-covalent interactions
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		PEG spacer Size	Conc.	Scale
GNP-ALB-4-*X*-*Y*	4 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-7-*X*-*Y*	7 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-15-*X*-*Y*	15 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-30-*X*-*Y*	30 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-45-*X*-*Y*	45 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-60-*X*-*Y*	60 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-80-*X*-*Y*	80 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-100-*X*-*Y*	100 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-150-*X*-*Y*	150 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL
GNP-ALB-200-*X*-*Y*	200 nm	Albumin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	50 OD	0.4 mL, 1 mL, 3 mL

***X* = 'B' – bovine, 'H' – human, 'M' – mouse, 'R' – rat Transferrin**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Surface Chemistry: Streptavidin



Specifications

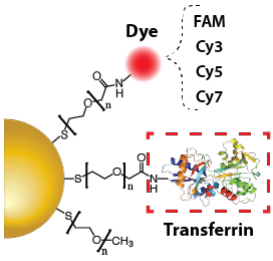
- Can be directly conjugated to biotin-functionalized molecules or substrate
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		PEG spacer Size	Conc.	Scale
GNP-STRP-4-*Y*-*D*	4 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-7-*Y*-*D*	7 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-15-*Y*-*D*	15 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-30-*Y*-*D*	30 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-45-*Y*-*D*	45 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-60-*Y*-*D*	60 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-80-*Y*-*D*	80 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-100-*Y*-*D*	100 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-150-*Y*-*D*	150 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL
GNP-STRP-200-*Y*-*D*	200 nm	Streptavidin-Coated Gold Nanoparticles	5 kDa (2 kDa backfill)	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Spherical Gold Nanoparticles

Surface Chemistry: Transferrin



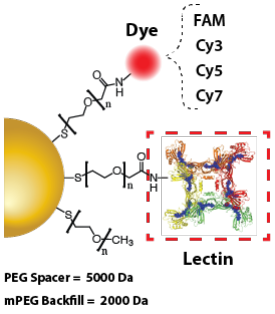
Specifications

- Target cancer cells that overexpress transferrin receptor
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-TRAN-4-*X-Y-D*	4 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-7-*X-Y-D*	7 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-15-*X-Y-D*	15 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-30-*X-Y-D*	30 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-45-*X-Y-D*	45 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-60-*X-Y-D*	60 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-80-*X-Y-D*	80 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-100-*X-Y-D*	100 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-150-*X-Y-D*	150 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-TRAN-200-*X-Y-D*	200 nm	Transferrin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***X* = 'H' – human, 'M' – mouse, 'R' – rat Transferrin**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Surface Chemistry: Lectin from Griffonia (Bandeiraea) simplicifolia (GSL I, BSL I)



Specifications

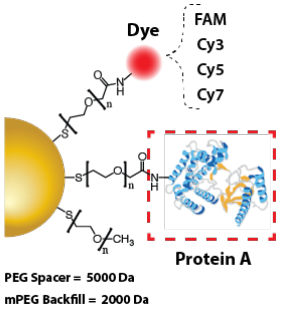
- GSL I includes a mixture of isolectins that bind several glycoproteins including laminin
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-LECG-4-*Y-D*	4 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-7-*Y-D*	7 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-15-*Y-D*	15 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-30-*Y-D*	30 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-45-*Y-D*	45 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-60-*Y-D*	60 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-80-*Y-D*	80 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-100-*Y-D*	100 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-150-*Y-D*	150 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-LECG-200-*Y-D*	200 nm	Lectin-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Spherical Gold Nanoparticles

Surface Chemistry: Protein A



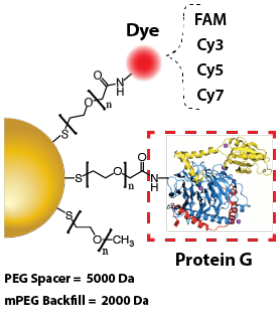
Specifications

- Binds human IgG, IgM, IgA, IgE
- Binds IgG from monkey, rabbit, pig, guinea pig, dog, and cat
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-PRA-4-*Y*-*D*	4 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-7-*Y*-*D*	7 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-15-*Y*-*D*	15 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-30-*Y*-*D*	30 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-45-*Y*-*D*	45 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-60-*Y*-*D*	60 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-80-*Y*-*D*	80 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-100-*Y*-*D*	100 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-150-*Y*-*D*	150 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRA-200-*Y*-*D*	200 nm	Protein A-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Surface Chemistry: Protein G



Specifications

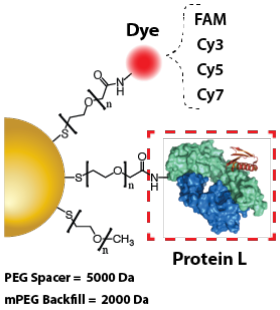
- Binds human, mouse, rat, goat antibody
- Does not bind human IgM, IgD, IgA
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-PRG-4-*Y*-*D*	4 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-7-*Y*-*D*	7 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-15-*Y*-*D*	15 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-30-*Y*-*D*	30 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-45-*Y*-*D*	45 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-60-*Y*-*D*	60 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-80-*Y*-*D*	80 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-100-*Y*-*D*	100 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-150-*Y*-*D*	150 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRG-200-*Y*-*D*	200 nm	Protein G-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Spherical Gold Nanoparticles

Surface Chemistry: Protein L



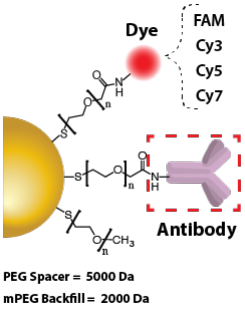
Specifications

- Binds all classes of Ig containing kappa light chains
- Core diameter: 4 nm – 200 nm
- Absorbance peak: 520 – 800 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-PRL-4-*Y*-*D*	4 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-7-*Y*-*D*	7 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-15-*Y*-*D*	15 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-30-*Y*-*D*	30 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-45-*Y*-*D*	45 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-60-*Y*-*D*	60 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-80-*Y*-*D*	80 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-100-*Y*-*D*	100 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-150-*Y*-*D*	150 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-PRL-200-*Y*-*D*	200 nm	Protein L-Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Surface Chemistry: Anti-IgG Antibody Reacts with: Human, Mouse, Rat, Rabbit, Goat, Sheep



Specifications

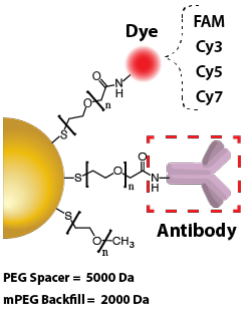
- Antibody targets IgG from a choice of human, mouse, rat, rabbit, goat, or sheep species
- Core diameter: 15 nm – 200 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-aIGG-15-*X*-*Y*-*D*	15 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-30-*X*-*Y*-*D*	30 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-45-*X*-*Y*-*D*	45 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-60-*X*-*Y*-*D*	60 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-80-*X*-*Y*-*D*	80 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-100-*X*-*Y*-*D*	100 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-150-*X*-*Y*-*D*	150 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aIGG-200-*X*-*Y*-*D*	200 nm	Anti-IgG Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***X* = 'H' – human, 'M' – mouse, 'R' – rat, 'B' – rabbit, 'G' – goat, 'S' – sheep IgG targets**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Spherical Gold Nanoparticles

Surface Chemistry: Anti-HER2 Antibody (Herceptin, Trastuzumab) Reacts with: Human



PEG Spacer = 5000 Da
mPEG Backfill = 2000 Da

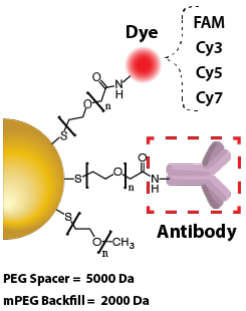
Specifications

- Antibody targets extracellular portion of HER2 receptor that is overexpressed in ~30% of breast cancers
- Core diameter: 15 nm – 200 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-HERC-15-*Y*-*D*	15 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-30-*Y*-*D*	30 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-45-*Y*-*D*	45 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-60-*Y*-*D*	60 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-80-*Y*-*D*	80 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-100-*Y*-*D*	100 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-150-*Y*-*D*	150 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-HERC-200-*Y*-*D*	200 nm	Herceptin (human) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Surface Chemistry: Anti-PV1 / PLVAP Monoclonal Antibody Reacts with: Mouse



PEG Spacer = 5000 Da
mPEG Backfill = 2000 Da

Specifications

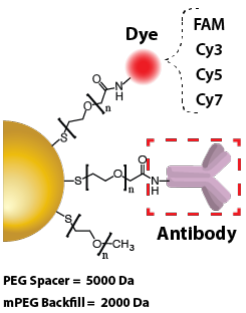
- Antibody targets mouse PV1 / PLVAP expressed on endothelial cells of blood vessels
- For non-specific isotype control use nanoparticle with Rat IgG2a, κ Isotype Ctrl Ab (p. 12).
- Core diameter: 15 nm – 200 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-mmaPV1-15-*Y*-*D*	15 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-30-*Y*-*D*	30 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-45-*Y*-*D*	45 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-60-*Y*-*D*	60 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-80-*Y*-*D*	80 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-100-*Y*-*D*	100 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-150-*Y*-*D*	150 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-mmaPV1-200-*Y*-*D*	200 nm	Anti-PV1 (mouse) Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750** dye

Spherical Gold Nanoparticles

Surface Chemistry: Rat IgG2a, κ Isotype Ctrl Ab (RTK2758) No Mouse, Rat, Human Reactivity



Specifications

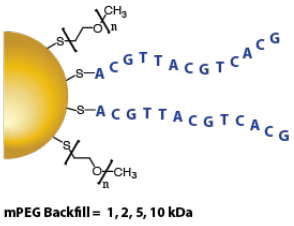
- Non-targeted isotype control nanoparticles for mouse endothelium-targeted gold nanoparticles functionalized with Anti-PV1 / PLVAP antibody. RTK2758 antibody has no reactivity with mouse, rat, or human tissues.
- Core diameter: 15 nm – 200 nm
- 5 kDa PEG spacer, 2 kDa PEG backfill
- Optional fluorescent dye label
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS

Catalog Number	Product Description		Dye Label	Conc.	Scale
GNP-aRTK2758-15-*Y-D*	15 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-30-*Y-D*	30 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-45-*Y-D*	45 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-60-*Y-D*	60 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-80-*Y-D*	80 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-100-*Y-D*	100 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-150-*Y-D*	150 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL
GNP-aRTK2758-200-*Y-D*	200 nm	RTK2758 Isotype Ctr. Ab Coated Gold Nanoparticles	None/AF488/555/647/IR750	10 OD	0.4 mL, 1 mL, 3 mL

Y = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale
D = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6' – AFDye 647, 'IR7' – IR750 dye

DNA Functionalized Spherical Gold Nanoparticles

Surface Chemistry: DNA Oligonucleotide



Specifications

- Single-stranded oligonucleotide between 11 and 90 bases long
- Custom oligonucleotide sequence
- Core diameter: 4 nm – 100 nm
- Stabilized by PEG backfill
- Shelf life: > 4 months (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

Catalog Number	Product Description		Nucleotide Length	PEG Backfill	Conc.	Scale
GNP-sDNA-4-*D-X-Y*	4 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-7-*D-X-Y*	7 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-15-*D-X-Y*	15 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-30-*D-X-Y*	30 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-45-*D-X-Y*	45 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-60-*D-X-Y*	60 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-80-*D-X-Y*	80 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL
GNP-sDNA-100-*D-X-Y*	100 nm	ssDNA Coated Gold Nanoparticles	S (11-59 b), L (60-90 b)	1 kDa, 2 kDa, 5 kDa, 10 kDa	10 OD	0.4 mL, 1 mL, 3 mL

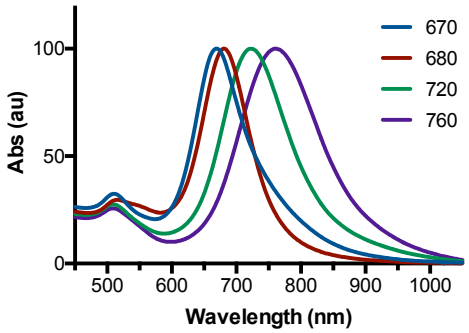
D = 'S' – short oligonucleotide (11-59 bases), 'L' – long oligonucleotide (60-90 bases)
X = '1' – 1 kDa, '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG backfill
Y = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale

Gold Nanorods

General Information

Gold nanorods have a very high absorbance cross section and efficiently convert the energy of optical excitation into heat generation. Nanorod geometry can be varied to adjust the maximum absorbance wavelength, allowing it to extend into the near-infrared tissue penetration optical window. This makes gold nanorods optimal probes for photothermal therapy, dark field microscopy and plasmonic nanosensors.

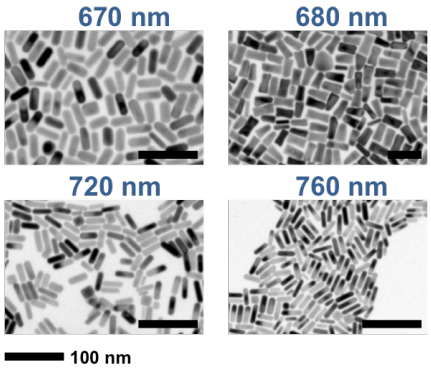
Absorbance Spectra



Features

- High absorbance cross section yields optimal heat generation
- A range of wavelength absorbance maxima: 670 to 760 nm
- Selection of sizes and aspect ratios
- Multiple PEG spacer sizes available (2 kDa to 10 kDa)
- Stable in physiological buffers
- Low non-specific protein and small molecule adsorption

Electron Microscopy



Applications

- Contrast agents for photothermal therapy
- Plasmonic sensors for detection of biological molecules
- Imaging probes for dark field microscopy

Physicochemical Properties

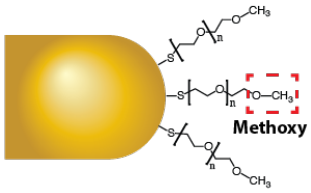
Abs (nm)	Length (nm)	Cross Section Diameter (nm)	Aspect Ratio
670	37.9 (±4.4)	13.8 (±2.6)	2.8
680	52.6 (±5.7)	23.9 (±4.2)	2.2
720	30.7 (±5.0)	8.8 (±2.2)	3.5
760	29.2 (±4.7)	7.5 (±1.2)	3.9

Specifications

- Length: 29 nm – 53 nm
- Cross section: 7 nm – 24 nm
- Aspect ratio: 2.2 – 3.9
- Absorbance peak: 670 nm – 760 nm
- Shelf life: > 1 year (4°C storage)
- Supplied as liquid suspension in PBS or in water with 0.01% (w/v) Tween-20

Gold Nanorods

Surface Chemistry: Methoxy-Terminated Polyethylene Glycol (PEG)

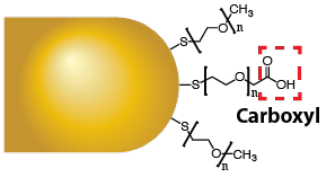


PEG Spacer = 2000, 5000, 10000 Da

Catalog Number	Product Description		PEG Size	Conc.	Scale
GNR-PEG-670-*X*-*Y*	670 nm Peak Abs	Methoxy PEG Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-PEG-680-*X*-*Y*	680 nm Peak Abs	Methoxy PEG Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-PEG-720-*X*-*Y*	720 nm Peak Abs	Methoxy PEG Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-PEG-760-*X*-*Y*	760 nm Peak Abs	Methoxy PEG Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Surface Chemistry: Carboxyl-Terminated Polyethylene Glycol (PEG)

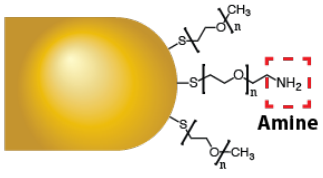


PEG Spacer = 2000, 5000, 10000 Da

Catalog Number	Product Description		PEG Size	Conc.	Scale
GNR-COOH-670-*X*-*Y*	670 nm Peak Abs	Carboxyl-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-COOH-680-*X*-*Y*	680 nm Peak Abs	Carboxyl-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-COOH-720-*X*-*Y*	720 nm Peak Abs	Carboxyl-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-COOH-760-*X*-*Y*	760 nm Peak Abs	Carboxyl-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Surface Chemistry: Amine-Terminated Polyethylene Glycol (PEG)



PEG Spacer = 2000, 5000, 10000 Da

Catalog Number	Product Description		PEG Size	Conc.	Scale
GNR-NH2-670-*X*-*Y*	670 nm Peak Abs	Amine-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-NH2-680-*X*-*Y*	680 nm Peak Abs	Amine-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-NH2-720-*X*-*Y*	720 nm Peak Abs	Amine-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL
GNR-NH2-760-*X*-*Y*	760 nm Peak Abs	Amine-Coated Gold Nanorods	2 kDa, 5 kDa, 10 kDa	50 OD	0.4 mL, 1 mL, 3 mL

***X* = '2' – 2 kDa, '5' – 5 kDa, '10' – 10 kDa PEG spacer**
***Y* = '04' – 0.4 mL, '1' – 1 mL, '3' – 3 mL scale**

Superparamagnetic CLIO Nanoparticles

Superparamagnetic CLIO Nanoparticles

General Information

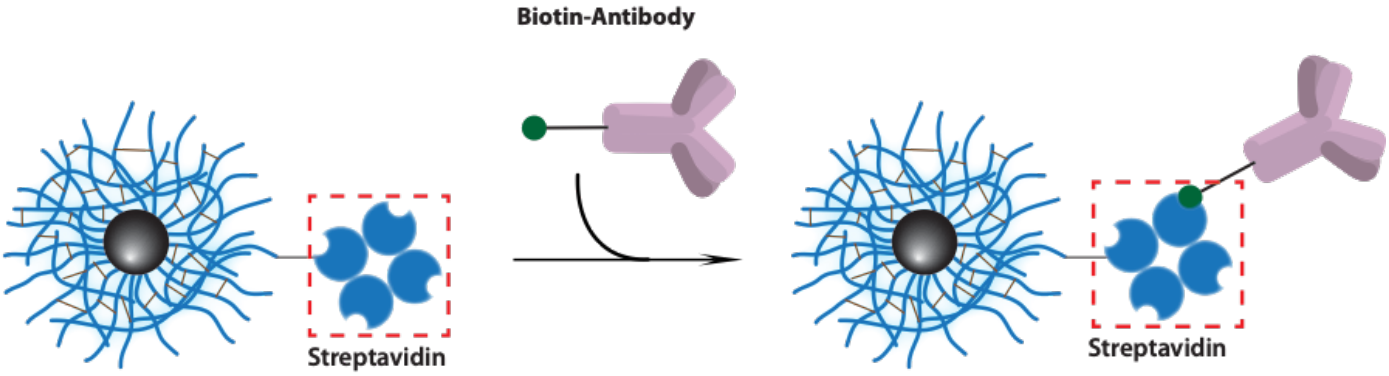
Cross-linked dextran coated iron oxide (CLIO) nanoparticles are synthesized by seed-mediated growth of iron oxide salt precursors in the presence of dextran sugar (40 kDa or 70 kDa). This process produces superparamagnetic nanoparticles with large magnetic moment. These nanoparticles have 1-3 of iron oxide magnetic cores (8-10 nm in diameter) imbedded within a polymerized dextran coat. The overall nanoparticle hydrodynamic diameter ranges between 65 nm and 100 nm, with 70 kDa dextran producing larger particles. In order to prevent dextran depolymerization leading to the nanoparticle breakdown we covalently cross-link the dextran sugar strands. After cross-linking, different surface functionalities such as Biotin, Streptavidin, or Fluorescent Dye are introduced.

Features

- Highly magnetic
- Highly biocompatible, non-toxic
- Optimal size for ***in vivo*** applications: 80 - 120 nm
- Range of available surface chemistries
- Long term stability under physiological conditions
- Resistant to non-specific protein adsorption
- Long ***in vivo*** blood half-lives
- ***In vitro*** and ***in vivo*** targeting

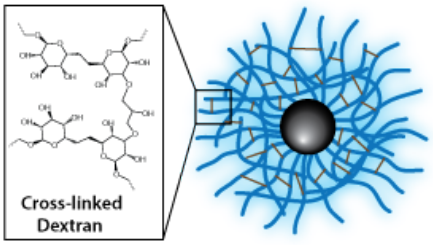
Applications

- ***In vitro*** and ***in vivo magnetic*** labels for cells and tissues
- Probes for magnetic cell separation and sorting
- Dual magnetic and florescence cell separation
- Dual-modality probes for MRI and Fluorescence imaging studies
- Passively and actively targeted probes for ***in vitro*** and ***in vivo*** magnetic particle imaging (MPI)
- Magnetic contrast agent for MRI



Superparamagnetic CLIO Nanoparticles

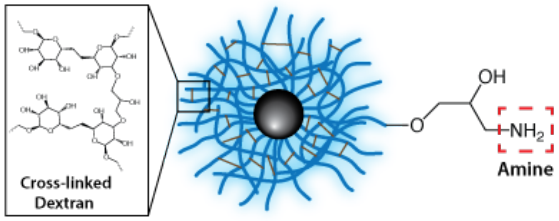
Surface Chemistry: Unmodified Cross-linked Dextran



Catalog Number	Product Description		Conc.	Scale
CLIO-DEX-40-*Y*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles	5 mg/mL Fe	1 mL, 2 mL, 5 mL, 10 mL
CLIO-DEX-70-*Y*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles	5 mg/mL Fe	1 mL, 2 mL, 5 mL, 10 mL

***Y* = '1' – 1 mL, '2' – 2 mL, '5' – 5 mL, '10' – 10 mL scale**

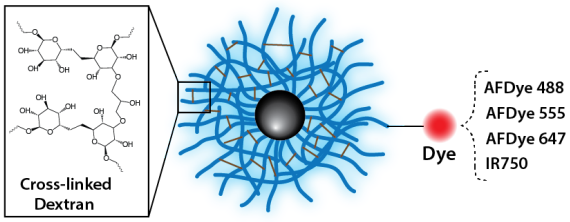
Surface Chemistry: Amine



Catalog Number	Product Description		Conc.	Scale
CLIO-NH2-40-*Y*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Amine Functionality	5 mg/mL Fe	1 mL, 2 mL, 5 mL, 10 mL
CLIO-NH2-70-*Y*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Amine Functionality	5 mg/mL Fe	1 mL, 2 mL, 5 mL, 10 mL

***Y* = '1' – 1 mL, '2' – 2 mL, '5' – 5 mL, '10' – 10 mL scale**

Surface Chemistry: Fluorescent Dye

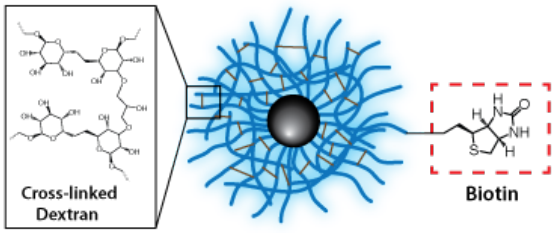


Catalog Number	Product Description		Conc.	Scale
CLIO-DYE-40-*Y-D*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Fluorescent Dye	5 mg/mL Fe	0.5 mL, 1 mL, 2 mL
CLIO-DYE-40-*Y-D*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Fluorescent Dye	5 mg/mL Fe	0.5 mL, 1 mL, 2 mL

***Y* = '05' – 0.5 mL, '1' – 1 mL, '2' – 2 mL**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6'– AFDye 647, 'IR7' – IR750** dye

Superparamagnetic CLIO Nanoparticles

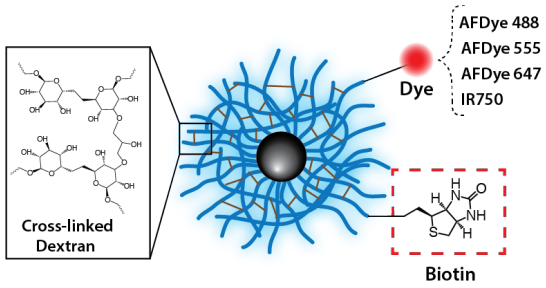
Surface Chemistry: Biotin



Catalog Number	Product Description		Conc.	Scale
CLIO-BIOT-40-*Y*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Biotin Functionality	5 mg/mL Fe	1 mL, 2 mL, 5 mL, 10 mL
CLIO-BIOT-70-*Y*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Biotin Functionality	5 mg/mL Fe	1 mL, 2 mL, 5 mL, 10 mL

***Y* = '1' – 1 mL, '2' – 2 mL, '5' – 5 mL, '10' – 10 mL scale**

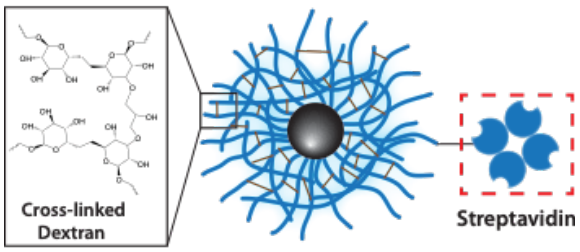
Surface Chemistry: Biotin, Fluorescent Dye



Catalog Number	Product Description		Conc.	Scale
CLIO-BIOTD-40-*Y*-*D*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Biotin, Fluorescent Dye	5 mg/mL Fe	0.5 mL, 1 mL, 2 mL
CLIO-BIOTD-70-*Y*-*D*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Biotin, Fluorescent Dye	5 mg/mL Fe	0.5 mL, 1 mL, 2 mL

***Y* = '05' – 0.5 mL, '1' – 1 mL, '2' – 2 mL**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6'– AFDye 647, 'IR7' – IR750** dye

Surface Chemistry: Streptavidin

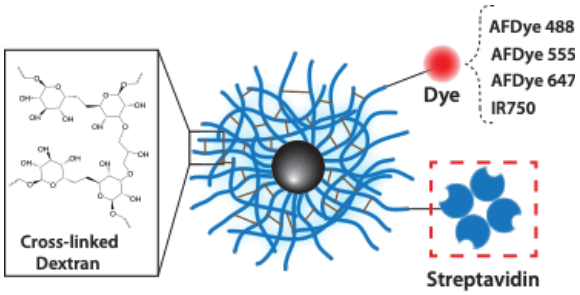


Catalog Number	Product Description		Conc.	Scale
CLIO-STRP-40-*Y*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Streptavidin Functionality	5 mg/mL Fe	0.2 mL, 0.5 mL, 1 mL, 2 mL
CLIO-STRP-70-*Y*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Streptavidin Functionality	5 mg/mL Fe	0.2 mL, 0.5 mL, 1 mL, 2 mL

***Y* = '02' – 0.2 mL, '05' – 0.5 mL, '1' – 1 mL, '2' – 2 mL scale**

Superparamagnetic CLIO Nanoparticles

Surface Chemistry: Streptavidin



Catalog Number	Product Description		Conc.	Scale
CLIO-STRP-40-*Y-D*	40 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Streptavidin, Fluorescent Dye	5 mg/mL Fe	0.2 mL, 0.5 mL, 1 mL
CLIO-STRP-70-*Y-D*	70 kDa	Dextran Superparamagnetic CLIO Nanoparticles: Streptavidin, Fluorescent Dye	5 mg/mL Fe	0.2 mL, 0.5 mL, 1 mL

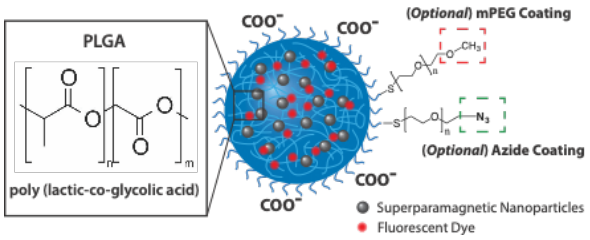
***Y* = '02' – 0.2 mL, '05' – 0.5 mL, '1' – 1 mL**
***D* = 'AF4' – AFDye 488, 'AF5' – AFDye 555, 'AF6'– AFDye 647, 'IR7' – IR750** dye

PLGA Nanoparticles

PLGA Nanoparticles

General Information

Our single-emulsion poly (lactic-co-glycolic acid) (PLGA) nanoparticles form nanostructures with a hydrophobic core encapsulated inside a hydrophilic shell. Dye molecules and magnetic nanoparticles can be encapsulated inside the hydrophobic core. PLGA surface contains COOH groups that can be used for EDC/NHS based bioconjugation. Optional surface modifications include methoxy PEG (improves in vivo blood half-life) and PEG-Azide (can be used to covalently attach biomolecules by click chemistry).



Features

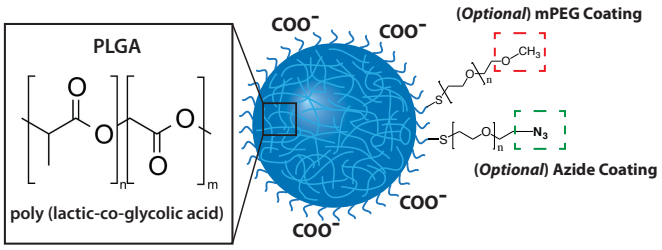
- 120 - 170 nm diameter PLGA nanoparticles.
- Made with FDA approved biocompatible and biodegradable PLGA polymer
- Conjugation-ready for covalent attachment of biomolecules
- High degree of monodispersity
- Magnetic version can be pulled down by application of magnetic force
- Can be labeled with a fluorescent dye.
- Optional incorporation of Methoxy-PEG minimizes non-specific protein adsorption. This increase nanoparticle in-vivo blood half-life
- Custom formulations for encapsulation of specific payloads are available

Applications

- Dual labeled fluorescence and magnetic nanoparticles for in-vivo targeting
- Dual fluorescence and MRI imaging for in vitro and in vivo applications
- Dual probes for magnetic cell pulldown and flowcytometry analysis
- Bioassay design
- ***In vitro*** and ***in vivo*** drug and custom payload delivery

PLGA Nanoparticles

Functionalities: Biocompatible PLGA Polymer



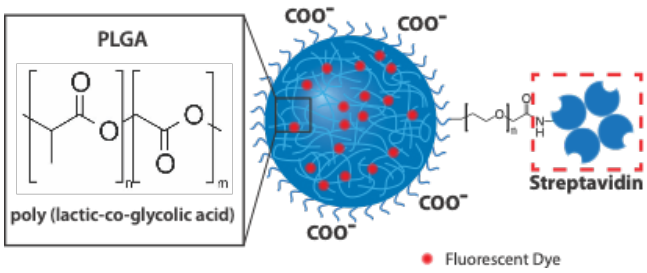
Specifications

- Made with FDA approved biocompatible and biodegradable PLGA polymer.
- Conjugation-ready for covalent attachment of biomolecules.
- (***Optional***) Incorporation of Methoxy-PEG minimizes non-specific protein adsorption. This increase nanoparticle in-vivo blood half-life.
- (***Optional***) Incorporation of Azide-PEG allows conjugation of proteins and small molecules by click chemistry.

Catalog Number	Product Description	Scale
PLGA-Y-20	PLGA Nanoparticles	20 mg
PLGA-Y-50	PLGA Nanoparticles	50 mg

Y = 'C' – Carboxyl, 'P' – Methoxy PEG, 'Z' – Azide PEG

Functionalities: Streptavidin Coated



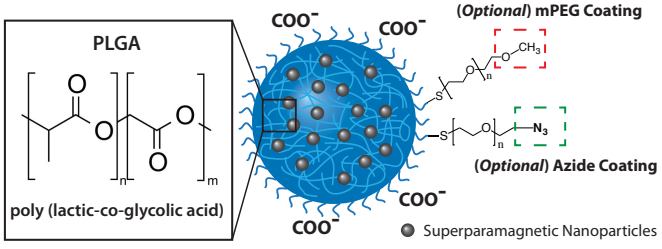
Specifications

- Made with FDA approved biocompatible and biodegradable PLGA polymer.
- Easy loading of antibodies, proteins, and small molecules through Streptavidin – Biotin interaction.
- (***Optional***) Incorporation of Methoxy-PEG minimizes non-specific protein adsorption. This increase nanoparticle in-vivo blood half-life.
- (***Optional***) Incorporation of Azide-PEG allows conjugation of proteins and small molecules by click chemistry.

Catalog Number	Product Description	Scale
PLGA-STRP-D-Y-1	PLGA Nanoparticles, Streptavidin Coated	1 mL @ 5 mg/mL
PLGA-STRP-D-Y-2	PLGA Nanoparticles, Streptavidin Coated	2 mL @ 5 mg/mL

D = 'O' – DiO, 'L' – DiI, 'D'– DiD, 'R' –DiR fluorescent dye
Y = 'N' – None, 'M' – Magnetic functionality

Functionalities: Magnetic



Specifications

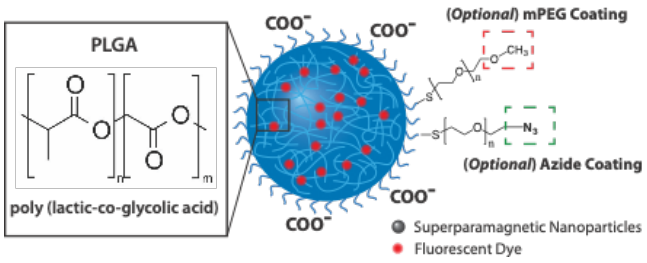
- Encapsulate smaller superparamagnetic nanoparticles, making the PLGA nanoparticle paramagnetic.
- Conjugation-ready for covalent attachment of biomolecules.
- (***Optional***) Incorporation of Methoxy-PEG minimizes non-specific protein adsorption. This increase nanoparticle in-vivo blood half-life.
- (***Optional***) Incorporation of Azide-PEG allows conjugation of proteins and small molecules by click chemistry.

Catalog Number	Product Description	Scale
PLGA-M-Y-10	PLGA Nanoparticles, Magnetic	10 mg
PLGA-M-Y-50	PLGA Nanoparticles, Magnetic	50 mg

Y = 'C' – Carboxyl, 'P' – Methoxy PEG, 'Z' – Azide PEG

PLGA Nanoparticles

Functionalities: Fluorescently Labeled



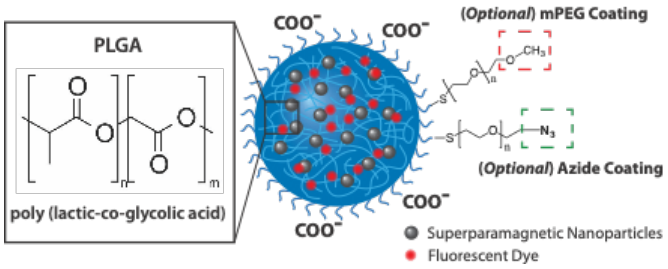
Specifications

- Fluorescently labeled with an encapsulated organic dye.
- Conjugation-ready for covalent attachment of biomolecules.
- (***Optional***) Incorporation of Methoxy-PEG minimizes non-specific protein adsorption. This increase nanoparticle in-vivo blood half-life.
- (***Optional***) Incorporation of Azide-PEG allows conjugation of proteins and small molecules by click chemistry.

Catalog Number	Product Description	Scale
PLGA-DYE-Y-D-20	PLGA Nanoparticles, Fluorescently Labeled	10 mg
PLGA-DYE-Y-D-50	PLGA Nanoparticles, Fluorescently Labeled	50 mg

Y = 'C' – Carboxyl, 'P' – Methoxy PEG, 'Z' – Azide PEG
D = 'O' – DiO, 'L' – DiI, 'D'– DiD, 'R' –DiR fluorescent dye

Functionalities: Magnetic, Fluorescently Labeled



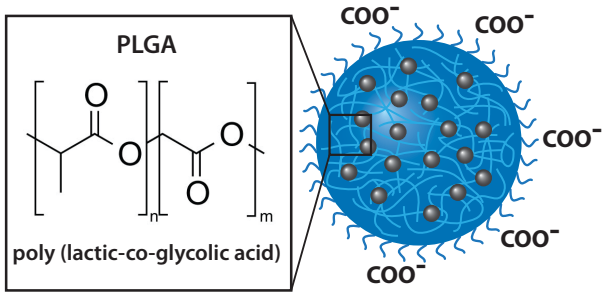
Specifications

- Fluorescently labeled with an encapsulated organic dye.
- Encapsulate smaller superparamagnetic nanoparticles, making the PLGA nanoparticle paramagnetic.
- Conjugation-ready for covalent attachment of biomolecules.
- (***Optional***) Incorporation of Methoxy-PEG minimizes non-specific protein adsorption. This increase nanoparticle in-vivo blood half-life.
- (***Optional***) Incorporation of Azide-PEG allows conjugation of proteins and small molecules by click chemistry.

Catalog Number	Product Description	Scale
PLGA-MDYE-Y-D-20	PLGA Nanoparticles, Fluorescently Labeled	10 mg
PLGA-MDYE-Y-D-50	PLGA Nanoparticles, Fluorescently Labeled	50 mg

Y = 'C' – Carboxyl, 'P' – Methoxy PEG, 'Z' – Azide PEG
D = 'O' – DiO, 'L' – DiI, 'D'– DiD, 'R' –DiR fluorescent dye

Custom Payload Encapsulation, Surface Functionalization



Specifications

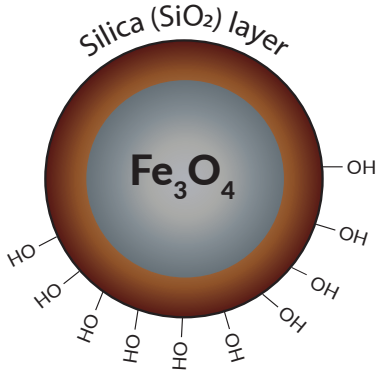
- Choose your favourite drug or molecular compound that you want to target to cells ***in vitro*** or ***in vivo*** to be incorporated inside our PLGA nanoparticles.
- Please contact us at ***info@lunanano.com*** for custom synthesis, conjugation and pricing.

Catalog Number	Product Description	Scale
PLGA-CUSTOM	PLGA Nanoparticles, Custom Payload Encapsulation and Surface Functionalization	Contact Us

MGB Magnetic Microbeads

General Information

- Luna Nanotech's magnetic beads consist of small superparamagnetic nanoparticles encapsulated inside a polymeric shell of ~ 500 nm diameter.
- Fairly small size of our beads provides optimal surface-to-volume ratio, allowing large amounts of ligands to be loaded onto the surface of the beads.
- The beads are highly magnetic: collection time on a magnetic rack can be as low as 15-30 seconds.
- Magnetic beads are available with a variety of surface chemistries that can be used for purification of biomolecules and bioconjugation of biological ligands.
- Magnetic beads can be used for purification and enrichment of proteins, DNA/RNA, small molecules and cells from complex mixtures.
- Loading antibodies, DNA / RNA and other biomolecules through Biotin-Streptavidin interaction, EDC/NHS chemical reaction, or azide-DBCO click chemistry reaction.
- Our beads are fully compatible with automated high throughput systems that include magnetic separation step.
- Our SILICA coated magnetic beads have been specifically optimized for use in high throughput magnetic extraction of viral RNA with such robotic systems as Hamilton STARlet, ThermoFisher KingFisher, and Opentron.



Features

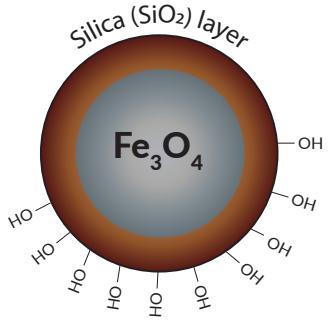
- Highly magnetic
- Biocompatible, non-toxic
- 500 nm bead diameter maximizes available surface area while ensuring strong magnetic response
- Range of available surface chemistries
- Long term stability under physiological conditions
- Conjugation ready for Biotin-Streptavidin, EDC/NHS, click chemistry surface functionalizations

Applications

- Magnetic separation of DNA, RNA, proteins, antibodies, cells and small molecules from complex samples
- Extraction and purification of DNA and RNA from bacteria, yeast, cells, tissues, blood
- Plasmid extraction
- PCR product purification and preparation for NGS
- Magnetic cell separation

MGB Magnetic Microbeads

Surface Chemistry: Silica

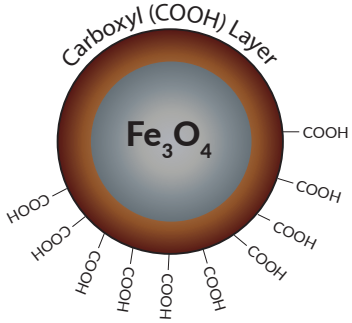


Specifications

- PuroMAG™ Silica-Coated Magnetic Beads are suitable for DNA and RNA purification with conventional silica based nucleic acid purification kits
- Our PuroMAG™ Silica-Coated Magnetic Beads have been used for clinical Covid-19 diagnostics
- Silica coating easily binds phosphate-backboned nucleic acids from numerous sources in high salt conditions, and the powerful magnetic core allows quick collection of the beads to speed up your workflow
- Diameter: 400-550 nm (via DLS)
- PDI: 0.2-0.3
- Magnetic collection time in water: 15-30s

Catalog Number	Product Description	Conc.	Scale
NMG-101	Silica-Coated Magnetic Beads	10 mg/mL	24 mL

Surface Chemistry: Carboxyl (COOH)

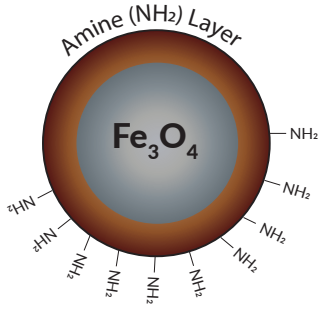


Specifications

- ***Conjugation ready:*** COOH groups on the magnetic beads can be reacted with NH2 groups to covalently load proteins, small molecules, or DNA / RNA onto the beads.
- High monodispersity
- Fast response to a magnet
- NH2 containing proteins, small molecules, DNA / RNA can be covalently attached to the carboxyl groups on the bead surface through EDC/NHS reactions

Catalog Number	Product Description	Conc.	Scale
MGB-COOH-10-10	Carboxyl-Coated Magnetic Beads	10 mg/mL	10 mL

Surface Chemistry: Amine (NH_2)



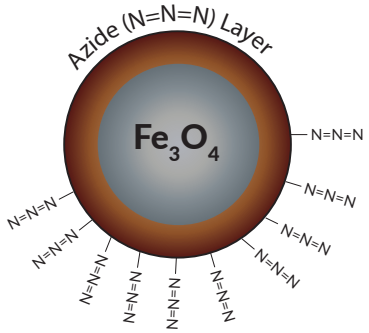
Specifications

- ***Conjugation Ready:*** NH2 groups on the magnetic beads can be reacted with activated carboxyl groups to covalently load proteins, small molecules, or DNA / RNA onto the beads
- High monodispersity
- Fast response to a magnet
- Carboxyl containing proteins, small molecules, DNA / RNA can be covalently attached to the amine groups on the bead surface through EDC/NHS reactions

Catalog Number	Product Description	Conc.	Scale
MGB-NH2-10-10	Amine-Coated Magnetic Beads	10 mg/mL	10 mL

MGB Magnetic Microbeads

Surface Chemistry: Azide

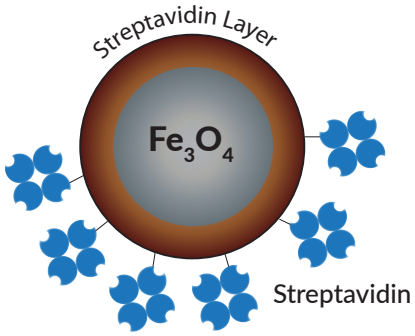


Specifications

- ***Conjugation Ready:*** NH2 groups on the magnetic beads can be reacted with activated carboxyl groups to covalently load proteins, small molecules, or DNA / RNA onto the beads
- High monodispersity
- Fast response to a magnet
- DBCO-functionalized proteins, small molecules, DNA / RNA can be covalently attached to bead surface through click chemistry conjugation method

Catalog Number	Product Description	Conc.	Scale
MGB-AZD-10-10	Azide-Coated Magnetic Beads	10 mg/mL	10 mL

Surface Chemistry: Streptavidin



Specifications

- Magnetic beads with Streptavdin protein functionalized surface
- High binding capacity of Biotin-conjugated molecules
- Rapid and efficient biomolecule purification from complex samples
- Fast response to a magnet
- High monodispersity
- Magnetic separation of Biotinylated cells, DNA, proteins, antibodies, and small ligands from complex samples. The streptavidin-coated magnetic beads are simply added to Biotinylated molecules for binding. The samples are transferred into a magnetic rack for easy removal of unbound residue.

Catalog Number	Product Description	Conc.	Scale
MGB-STRP-10-2	Streptavidin-Coated Magnetic Beads	10 mg/mL	2 mL
MGB-STRP-10-10	Streptavidin-Coated Magnetic Beads	10 mg/mL	10 mL

Learn more at:
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lunanano.com/nanoparticle-products (*US/International*)

Luna Nanotech Inc.
85 Citizen Court, Unit 13
Markham, ON, Canada
L6G 1A8

Email: info@lunanano.com
Phone: 1-800-474-4055
Web: www.lunanano.ca (Canada)
www.lunanano.com (US/International)

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