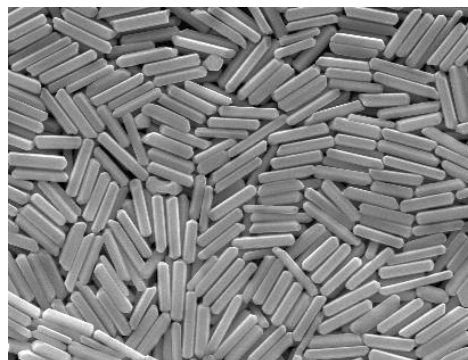


## Nanopartz™ Microgold™

[Nanopartz™](#) has developed a brand new material – Microgold - the largest monodisperse gold particles available. These Gold Microrods (GMRs) are hundreds of nanometers in the transverse dimension and up to 1 micron in lengths. These GMRs are the largest known "nanoparticles" available - and the largest that can still be considered nanoparticles. These particles match the wavelength of light in the longitudinal dimension providing single particle detection under white light microscopy while in the transverse mode, they provide a surface plasmon resonance in the visible region at approximately 600 nm. This combination of features create an extremely novel optical material.



TEM of 150 nm x 800 nm Microgold Nanorods

### Composition

This product is shipped in 18MΩ DI water with < 0.1% CTAB surfactant capping agent.

### Specification Overview

In batch size variation	< 10% CV length
Shape monodispersity	> 95% microrods
Surface charge (zeta)	+40 mV typ
CTAB	<0.1%

Microgold Part #	Axial Diameter (nm)	Long Size (nm)	NPS/ml	Wt. conc (mg/ml)	Wt. %	PPM	Molarity (pM)
70-150-800-20	150	800	1.8E+08	50	0.0050%	50	0.3
70-200-1000-20	200	1000	8.3E+07	50	0.0050%	50	0.1

Shape monodispersity (% rods) > 95%

Size variation +/-10% (both dimensions)

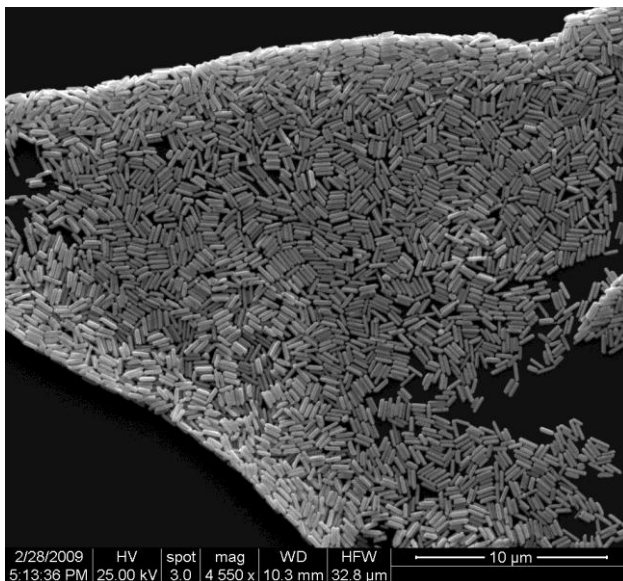
All specs typical. May vary batch to batch. Exact values are measured for each batch

### Custom Formulation and Production

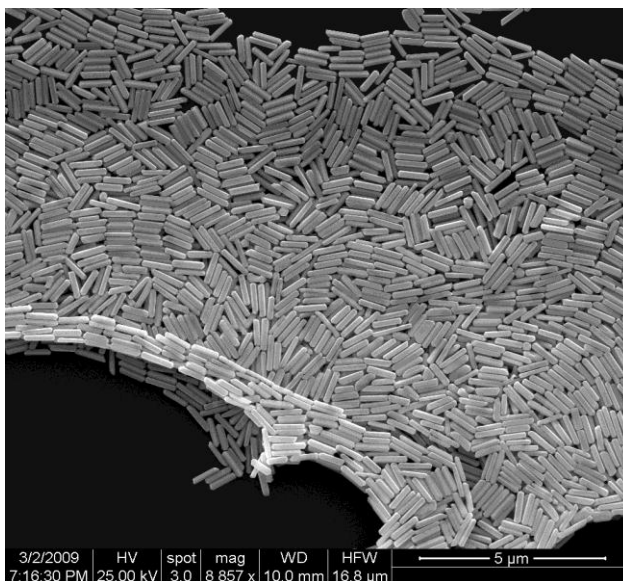
The substitution of CTAB with a polymer caged PEG terminated methyl conjugation is available. Please contact us for more information.

## Quantity

This product is available in 20 ml sizes. For For larger sizes, or for orders amounting over 10 L per annum, please contact sales for quantity pricing.



TEM of 200 nm x 1000 nm Microgold Nanorods



TEM of 150 nm x 800 nm Microgold Nanorods

### Delivery

All orders come with a batch distribution curve for quality assurance. Standard sizes are in stock. Special order sizes will be shipped in two weeks or less. All shipments are sent Fed Ex Standard Overnight delivery. No shipments on Fridays.

### Precautions

1. For professional users.
2. Refer to MSDS on website.
3. As with any product derived from biological sources, proper handling procedures should be used.
4. The product may be used in different techniques and in combination with different sample types and materials, therefore each individual laboratory should validate the test system applied.

### Storage instructions

Store at 4°C and do not freeze. CTAB, even at 0.1%, may cause a supernatant “cloud” at low temperatures (i.e. 4 °C). Before use, allow nanorods to warm to room temperature thereby resuspending excess CTAB. Particularly for the larger nanorods, make sure to homogenize the bottles after long storage periods to resuspend any sedimentation.

### Conjugation

Unlike spherical gold nanoparticles where the net surface charge is negative thereby affording passive antibody adsorption, Microgold have a net positive surface charge. Consequently, it is strongly recommended that for conjugating the customer should purchase contact customer support for options.

### Part Numbers

Part #	Description
70-150-800-20	Gold microrods, 150x800 nm, 0.05 mg/ml, 20 ml
70-200-1000-20	Gold microrods, 200x1000nm, 0.05 mg/ml, 20 ml