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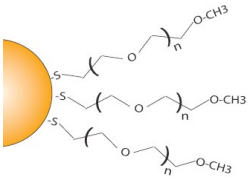
PRODUCT DATA SHEET

Methylated Gold Nanoparticles



Description

Cytodiagnostics methylated gold nanoparticles are available with two different lengths of PEG surface spacers, i.e. 2000Da and 5000Da offering control of particle hydrodynamic size.

Our methylated gold nanoparticles are available in 12 different sizes ranging from 5 -100nm, are more than 95% spherical and have uniform size distribution (CV <12%).

For custom sizes, formulations or bulk quantities please contact our customer service department.

Features

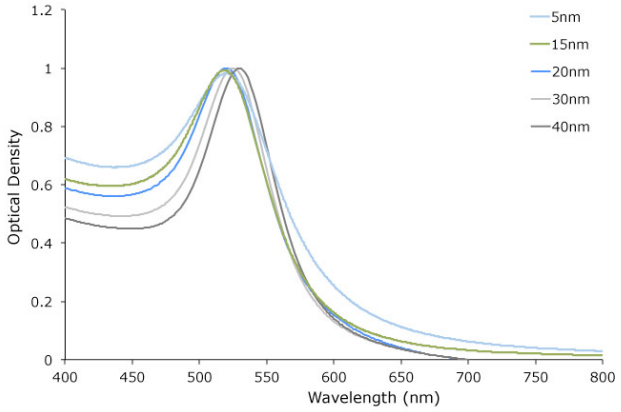
• Superior size distribution compared to the leading competitor; available from 5nm to 100nm.
• Precisely engineered surface.
• Low protein binding surface.

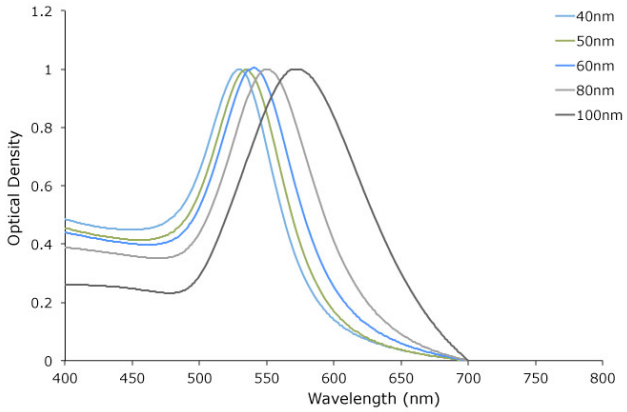
Applications

• Ideal as an inactive control to other functionalized gold nanoparticles, e.g. carboxyl, amine and biotin.
• Ideal nanoparticles for passive tumor targeting studies *in vivo*.

Characteristics

Core diameter: 5 -100nm (Coefficient of Variance < 12%)
Polydispersity Index (PDI): < 0.150
Amount: OD=50
Absorbance (λmax): 510-570nm
Supplied in USP Grade H_2O





Storage

This product should be stored at 4°C. If stored as specified, Cytodiagnostics Methylated Gold Nanoparticles are stable for at least 12 months. DO NOT FREEZE.

Handling

When stored for a long period of time gold nanoparticles may sediment at the bottom of the vial, which is especially true for larger particle sizes. Prior to use, re-suspend the sedimented particles by swirling until a homogenous solution is obtained.

Precautions and Disclaimer

These products are for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet available online at www.cytodiagnostics.com for information regarding hazards and safe handling procedures.

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Diameter (nm)	Peak SPR Wavelength (nm)	NPS/ml	Wt. Conc. (mg/ml)	Molar Ext ($M^{-1}cm^{-1}$)	Size Dispersity (+/-nm)	Particle Volume (nm^3)	Surface Area (nm^2)	Surface/ Volume Ratio	Particle Mass (g)	Molar Mass (g/mol)	Molar Conc.
5	515-520	2.74E+15	3.47	1.10E+07	<15%	6.54E+01	7.85E+01	1.2	1.27E-18	7.64E+05	4.54E-06
10	515-520	2.99E+14	3.04	1.01E+08	<15%	5.24E+02	3.14E+02	0.6	1.02E-17	6.11E+06	4.97E-07
15	520	8.20E+13	2.81	3.67E+08	<12%	1.77E+03	7.07E+02	0.4	3.43E-17	2.06E+07	1.36E-07
20	524	3.27E+13	2.66	9.21E+08	<12%	4.19E+03	1.26E+03	0.3	8.12E-17	4.89E+07	5.45E-08
30	526	8.95E+12	2.46	3.36E+09	<12%	1.41E+04	2.83E+03	0.2	2.74E-16	1.65E+08	1.49E-08
40	530	3.58E+12	2.33	8.42E+09	<12%	3.35E+04	5.03E+03	0.15	6.50E-16	3.91E+08	5.95E-09
50	535	1.76E+12	2.23	1.72E+10	<10%	6.54E+04	7.85E+03	0.12	1.27E-15	7.64E+08	2.92E-09
60	540	9.80E+11	2.15	3.07E+10	<10%	1.13E+05	1.13E+04	0.1	2.19E-15	1.32E+09	1.63E-09
70	548	6.00E+11	2.09	5.03E+10	<10%	1.80E+05	1.54E+04	0.086	3.48E-15	2.10E+09	9.95E-10
80	553	3.91E+11	2.03	7.70E+10	<10%	2.68E+05	2.01E+04	0.075	5.20E-15	3.13E+09	6.50E-10
90	564	2.69E+11	1.99	1.12E+11	<8%	3.82E+05	2.54E+04	0.067	7.40E-15	4.46E+09	4.46E-10
100	572	1.92E+11	1.95	1.57E+11	<8%	5.24E+05	3.14E+04	0.06	1.02E-14	6.11E+09	3.19E-10

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Catalog Number	Description	Lambda max (nm)	Sizes
CGM2K-5-X*	5nm Methyl Gold Nanoparticles (2000Da PEG)	515-520	0.5ml, 1.0ml (50 OD)
CGM2K-10- X*	10nm Methyl Gold Nanoparticles (2000Da PEG)	515-520	0.5ml, 1.0ml (50 OD)
CGM2K-15- X*	15nm Methyl Gold Nanoparticles (2000Da PEG)	520	0.5ml, 1.0ml (50 OD)
CGM2K-20- X*	20nm Methyl Gold Nanoparticles (2000Da PEG)	524	0.5ml, 1.0ml (50 OD)
CGM2K-30- X*	30nm Methyl Gold Nanoparticles (2000Da PEG)	526	0.5ml, 1.0ml (50 OD)
CGM2K-40- X*	40nm Methyl Gold Nanoparticles (2000Da PEG)	530	0.5ml, 1.0ml (50 OD)
CGM2K-50- X*	50nm Methyl Gold Nanoparticles (2000Da PEG)	535	0.5ml, 1.0ml (50 OD)
CGM2K-60- X*	60nm Methyl Gold Nanoparticles (2000Da PEG)	540	0.5ml, 1.0ml (50 OD)
CGM2K-70- X*	70nm Methyl Gold Nanoparticles (2000Da PEG)	548	0.5ml, 1.0ml (50 OD)
CGM2K-80- X*	80nm Methyl Gold Nanoparticles (2000Da PEG)	553	0.5ml, 1.0ml (50 OD)
CGM2K-90- X*	90nm Methyl Gold Nanoparticles (2000Da PEG)	564	0.5ml, 1.0ml (50 OD)
CGM2K-100- X*	100nm Methyl Gold Nanoparticles (2000Da PEG)	572	0.5ml, 1.0ml (50 OD)
CGM5K-5- X*	5nm Methyl Gold Nanoparticles (5000Da PEG)	515-520	0.5ml, 1.0ml (50 OD)
CGM5K-10- X*	10nm Methyl Gold Nanoparticles (5000Da PEG)	515-520	0.5ml, 1.0ml (50 OD)
CGM5K-15- X*	15nm Methyl Gold Nanoparticles (5000Da PEG)	520	0.5ml, 1.0ml (50 OD)
CGM5K-20- X*	20nm Methyl Gold Nanoparticles (5000Da PEG)	524	0.5ml, 1.0ml (50 OD)
CGM5K-30- X*	30nm Methyl Gold Nanoparticles (5000Da PEG)	526	0.5ml, 1.0ml (50 OD)
CGM5K-40- X*	40nm Methyl Gold Nanoparticles (5000Da PEG)	530	0.5ml, 1.0ml (50 OD)
CGM5K-50- X*	50nm Methyl Gold Nanoparticles (5000Da PEG)	535	0.5ml, 1.0ml (50 OD)
CGM5K-60- X*	60nm Methyl Gold Nanoparticles (5000Da PEG)	540	0.5ml, 1.0ml (50 OD)
CGM5K-70- X*	70nm Methyl Gold Nanoparticles (5000Da PEG)	548	0.5ml, 1.0ml (50 OD)
CGM5K-80- X*	80nm Methyl Gold Nanoparticles (5000Da PEG)	553	0.5ml, 1.0ml (50 OD)
CGM5K-90- X*	90nm Methyl Gold Nanoparticles (5000Da PEG)	564	0.5ml, 1.0ml (50 OD)
CGM5K-100- X*	100nm Methyl Gold Nanoparticles (5000Da PEG)	572	0.5ml, 1.0ml (50 OD)

NOTE: X* is either -25 for 0.5ml format, or -50 for 1.0ml format.

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