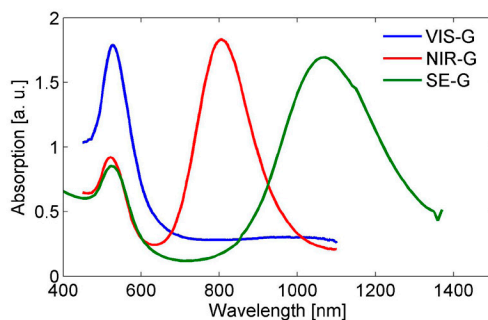


## nanoAgents

Metallic Nanoparticles for technical and life science application

- **Gold nanorods with ultra-high optical absorption cross section**
- **Optimized for optoacoustic imaging**
- **Particles with tuned spectral absorption maximum available: vis-G (550-700 nm), nir-G (700-950 nm), se-G (super-elongated gold nanorods, 1064 nm)**
- **Different particle coatings:**
  - **CTAB: technical applications**
  - **mPEG: stealth particles for extended circulation times**
  - **X-PEG: various polymer coatings for specific molecular binding (antibodies, peptides)**



**kibero nanoAgents** were designed for imaging research purposes. The unique properties of these gold nanorods allow their use for a wide range of technical and life-science applications including in-vitro and in-vivo imaging, and diagnostics and therapeutics research.

### Features:

Advanced synthesis method - tunable absorption properties from VIS to NIR allow usage of Nd:YAG lasers @ 1064 nm. Absorption in optical window (spectral range with maximum skin transmission) guarantees best in-vivo results

**Customized surface coatings** - standard CTAB or various polymers allow ultra-high in-vivo circulation times and binding to targeting agents (antibodies, peptides)

**High stability** – coating layers prevent particle aggregation and allow stable storage over months

**Strong plasmon resonance** – absorption cross section by magnitudes higher than for quantum dots. High conversion efficiency from light to pressure (optoacoustic imaging) and from light to heat (photothermal treatment)

**Low cytotoxicity** – the cytotoxic potential of kibero nanoAgents was measured according to DIN EN 10993 and shows no acute cytotoxicity .

kibero nanoAgents are for research purposes only. kibero Nanoagents are not a medical product and must not be used on humans.

Particle Types	Peak Wavelength*	Axial Size	Longitudinal Size	Available coatings	Available Sample volumes	Optical Absorption@ Peak wavelength	Particle concentration
VIS-G	550	11nm	25nm	CTAB m-PEG X-PEG**	1,5 ml *** 30 ml 300 ml	1 cm-1	2.0E+11 ml-1
NIR-G	800	11nm	45nm				
SE-G	1050	11nm	70nm				

\* FWHM of size distribution = 120 nm

\*\* X = NH<sub>2</sub>, MAL, SH, COOH

\*\*\* 1,5 ml samples come in high concentration of 1.0E+13 ml-1 with enhanced optical absorption

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