

micromod Partikeltechnologie GmbH

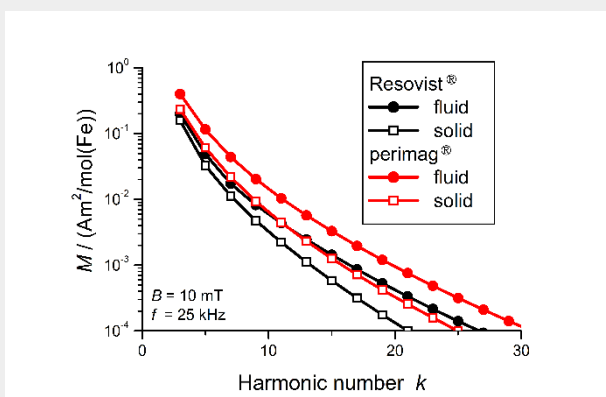
More than **20 years** of experience in the production of chemically surface-functionalized and/or magnetizable micro- and nanoparticles

A recent research highlight

perimag® - our new Magnetic Nanoparticle Type with Excellent Properties

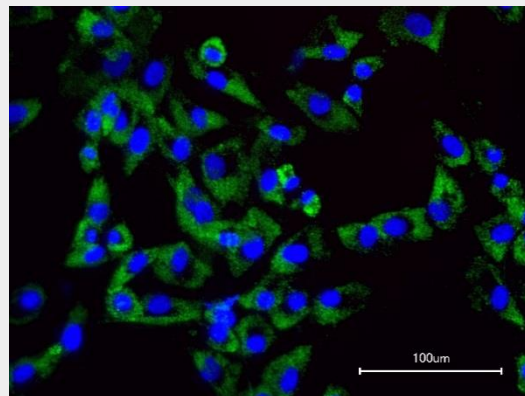
- ➡ as contrast agent for Magnetic Particle Imaging (MPI)
- ➡ as contrast agent for Magnetic Resonance Imaging (MRI)
- ➡ for hyperthermia applications
- ➡ for homing and tracking of stem cells in regenerative medicine

Magnetic Particle Spectra:



Magnetic Particle Spectra (MPS) of suspended and immobilized perimag® and Resovist®
(D. Eberbeck *et al. IEEE Transactions on Magnetics* 2013, 49 (1) 269-274.)

Stem Cell Labeling with fluorescent perimag®:



Labeling of hMSC with fluorescent perimag® (nucleus: blue; perimag® in cytoplasm: green)
(M. Steinke *et al. Nanomedicine* 2016, 11 (15) 1957-1970.)

- The amplitude **A3** of the 3rd harmonic in the MPS spectrum of perimag® is twice as high as that of Resovist®.
- Amino functionalized perimag® show high uptake in stem cells for MPI and MRI without use of transfection agents.