CZ.1.07/2.3.00/20.0148 NANOLABSYS
Mezinárodní spolupráce v oblasti „*in vivo*“ zobrazovacích technik
Laboratoř Metalomiky a Nanotechnologií

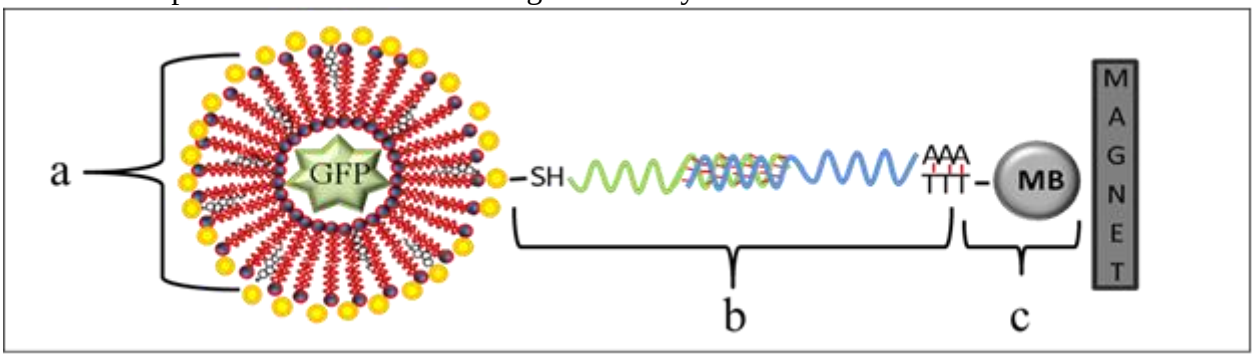
Vás zve na seminář:

Liposomal Transporter with GFP mark for Targeted Binding using a Nucleic Acid Anchor System

Ing. Lukáš Nejdl, Ing. Branislav Rutkay-Nedecký, Ph.D., Doc. RNDr. Pavel Kopel, Ph.D., Mgr. Marie Konečná, Ph.D.

Abstrakt

In our work, we focused on the possibility of modification of liposomes with gold nanoparticles (AuNPs). In addition, AuNPs-modified liposomes were labelled by green fluorescent protein (GFP). Modified liposomes were isolated using magnetic microparticles (oligo(DT)$_{25}$)-nucleic acid anchor system (ODN- 5´TCTGCATTCCAGAAAAA). Isolation efficiency of lipoGFP-AuNPs was 20 %. Gel electrophoresis, MALDI-TOF, UV/VIS spectrophotometry and fluorescence imaging were used to characterize individual parts of the system lipoGFP-AuNPs. Amplified GFP was isolated and further characterized by gel electrophoresis, MALDI-TOF, and fluorescence imaging. Subsequently, GFP was enclosed in nanogold-modified liposomes that were isolated using magnetic microparticles and nucleic acid anchor system. Effectiveness of the whole isolation process was 20%. The functionality of the whole procedure was verified using fluorimetry.



pátek 03. 10. 2014, od 17:00

Ústav chemie a biochemie, Laboratoř metalomiky a nanotechnologií, Zemědělská 1, 613 00 Brno, Kontakt: kizek@sci.muni.cz

evropský sociální fond v ČR
EVROPSKÁ UNIE
MINISTERSTVO ŠKOLSTVÍ, MLÁDEŽE A TĚLOVÝCHOVY
OP Vzdělávání pro konkurenceschopnost
INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ