

The effects of morphology and linker length on the properties of peptide–lanthanide upconversion nanomaterials as G2 phase cell cycle inhibitors.

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Streszczenie

In this work, the shape effect of our same-sized hybrid nanomaterials conjugated with two different Plk1-specific peptides had been investigated in terms of their photophysical properties, cellular uptake efficiencies, and selective inhibitory effects towards cancer and normal cells. The results clearly indicate that our spherical NaGdF₄@SiO₂-P₁ nanoparticles achieve the best performance for in vitro imaging, G2 phase cell arrest, and, hence, cell cycle inhibition.

Słowa kluczowe

nanoparticles, Peptides, lanthanides, medicinal chemistry, imaging agents, antitumor agents, inhibitors

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