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SUPPORTING INFORMATION

Functionalized nanoceria exhibit improved angiogenic properties

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Keywords: Functionalized nanoceria, (6-{2-[2-(2-methoxy-ethoxy)-ethoxy]-ethoxy}-hexyl)triethoxysilane, angiogenesis, chick embryo angiogenesis.

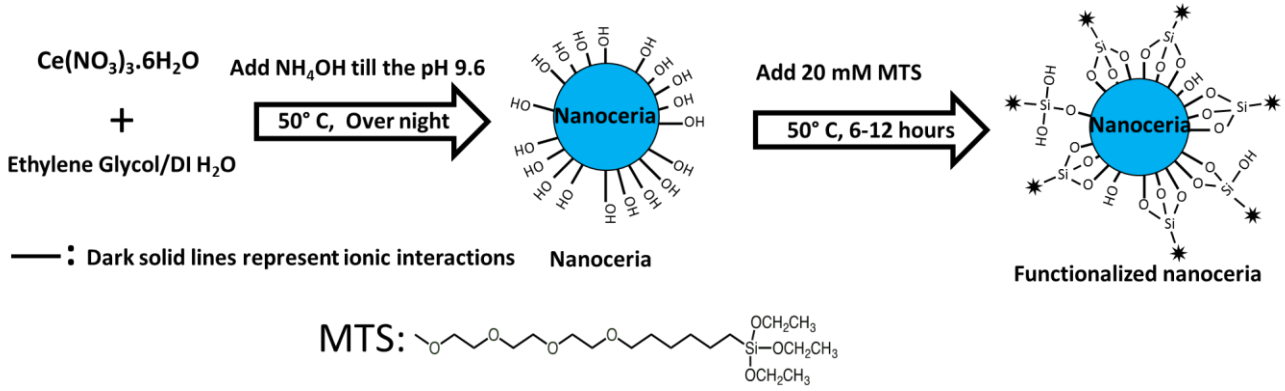

Fig. S1 Synthesis and in situ functionalization of nanoceria using biocompatible organosilane (MTS: 6-{2-[2-(2-Methoxy-ethoxy)-ethoxy]-ethoxy}-hexyl)triethoxysilane) via ammonia-induced EG-assisted precipitation method.

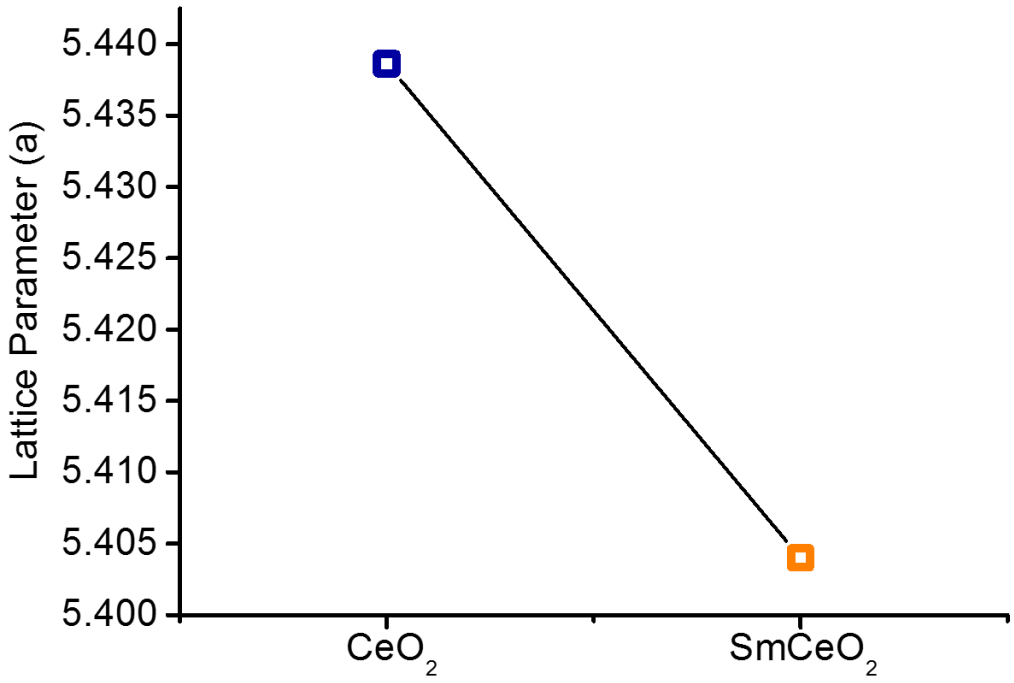

Fig. S2 Lattice parameter variation with samarium doping in CeO2 nanocrystals prepared using ammonia-induced EG-assisted precipitation method.

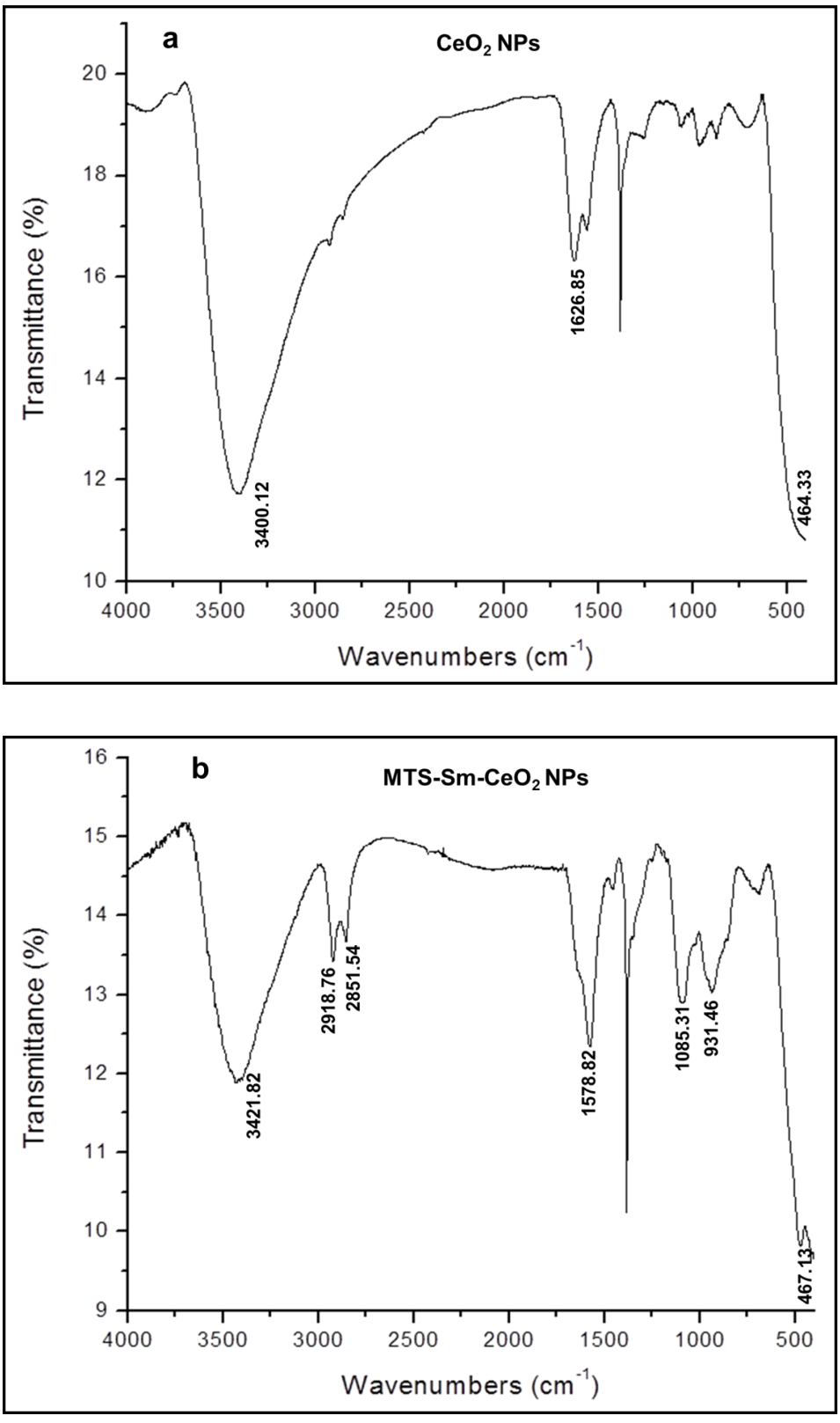

Fig. S3 FTIR spectra of (a) CeO_2 NPs and (b) MTS-SmCeO_2 NPs.
NPs: Nanoparticles.

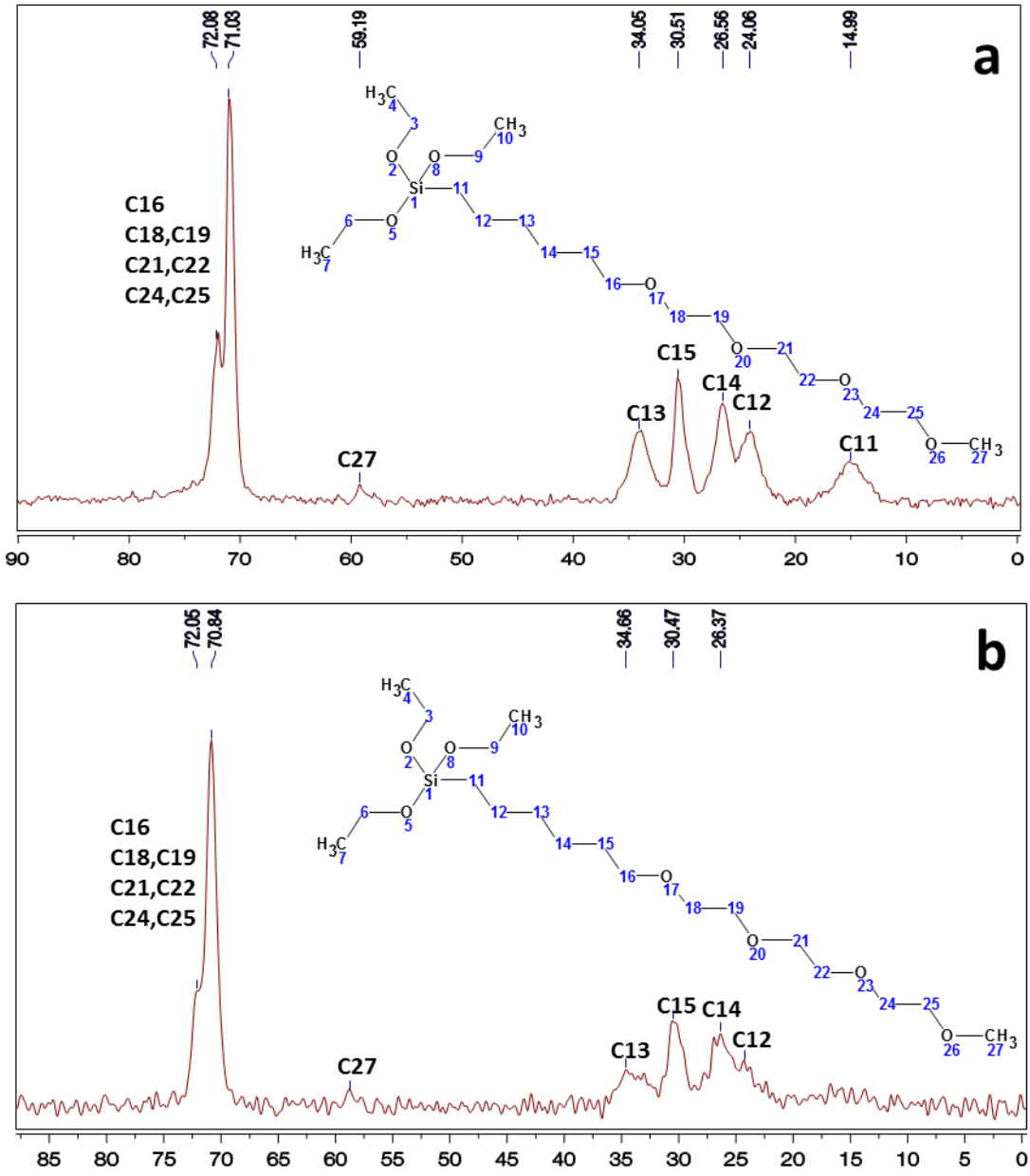

Fig. S4 The 13C NMR spectrum of MTS-CeO2 (a) and MTS-SmCeO2 (b) and the representative chemical structure of MTS.

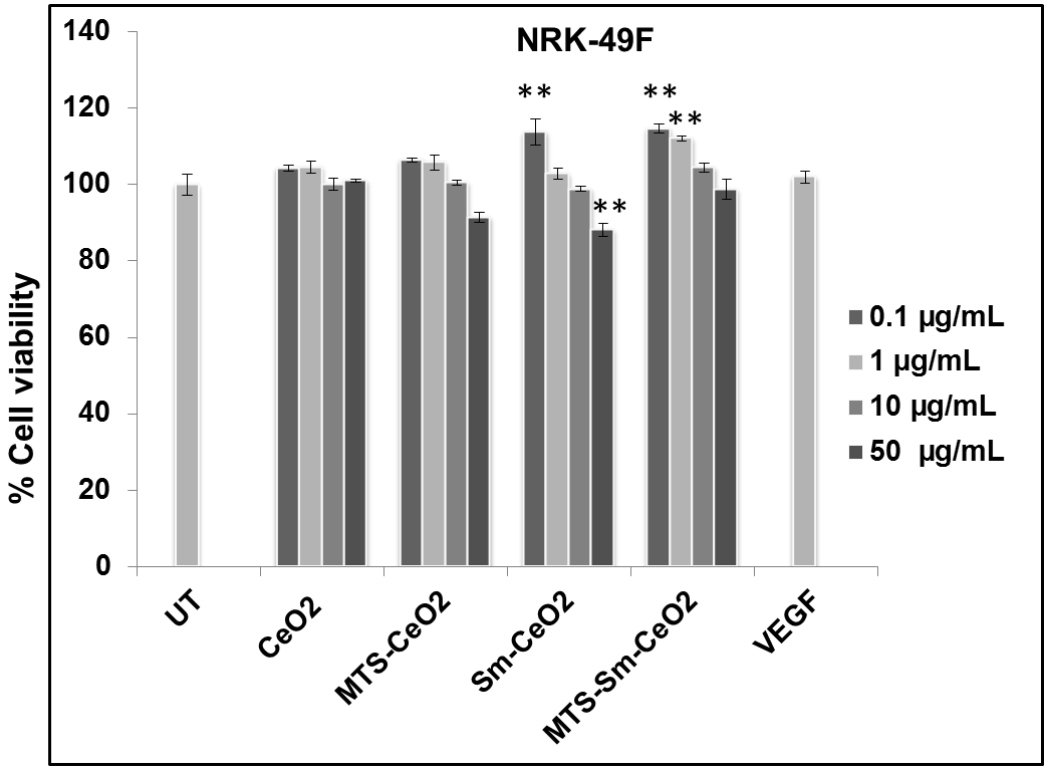

Fig. S5 Cell viability assay. Effect of the functionalized nanoceria on the viability and proliferation of NRK-49F rat kidney fibroblast cells determined using MTT assay.

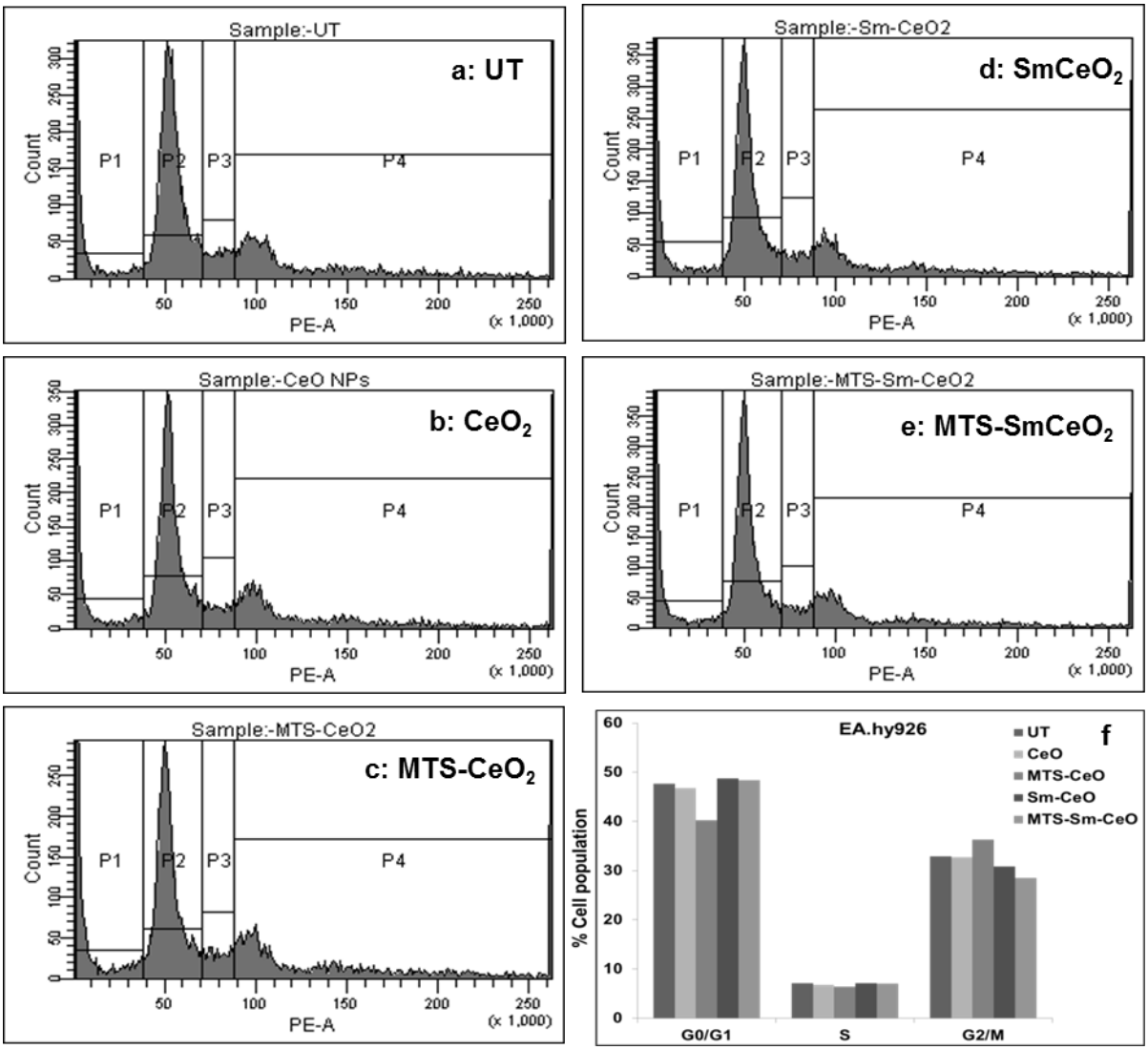

Fig. S6 Cell cycle analysis of EA.hy926 cells incubated with (a) Untreated, (b) CeO_2, (c) MTS- CeO_2, (d) $SmCeO_2$ and (e) MTS-$SmCeO_2$ nanoparticles. (f) Histogram represents the % cell population due to various treatments in G0/G1, S & G2/M check points of cell cycle.