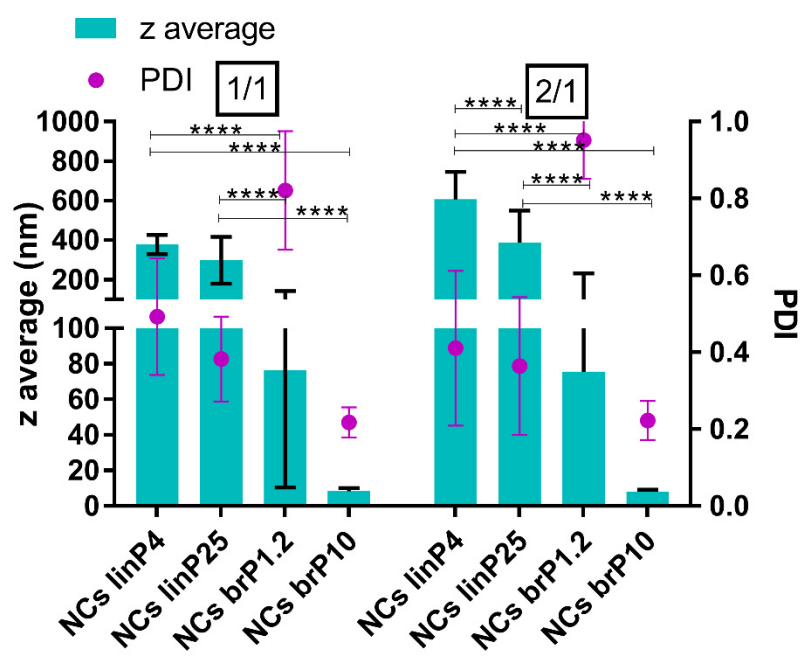
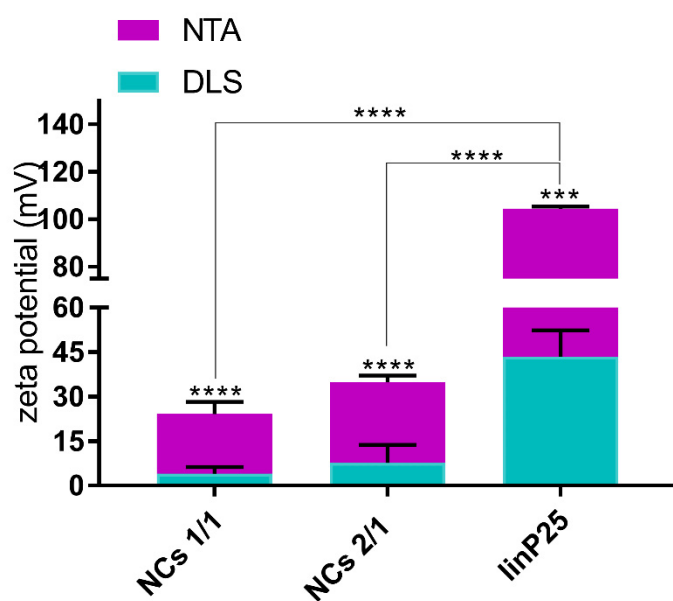


1. Supplementary Materials

(a)



(b)



(c)

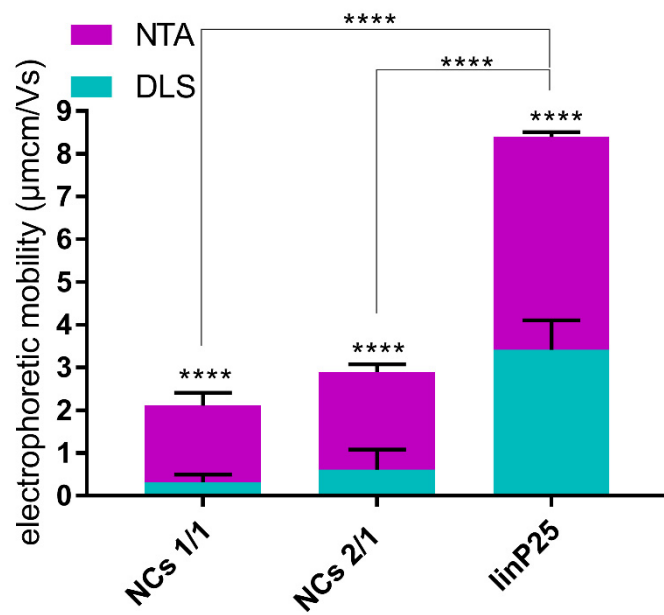
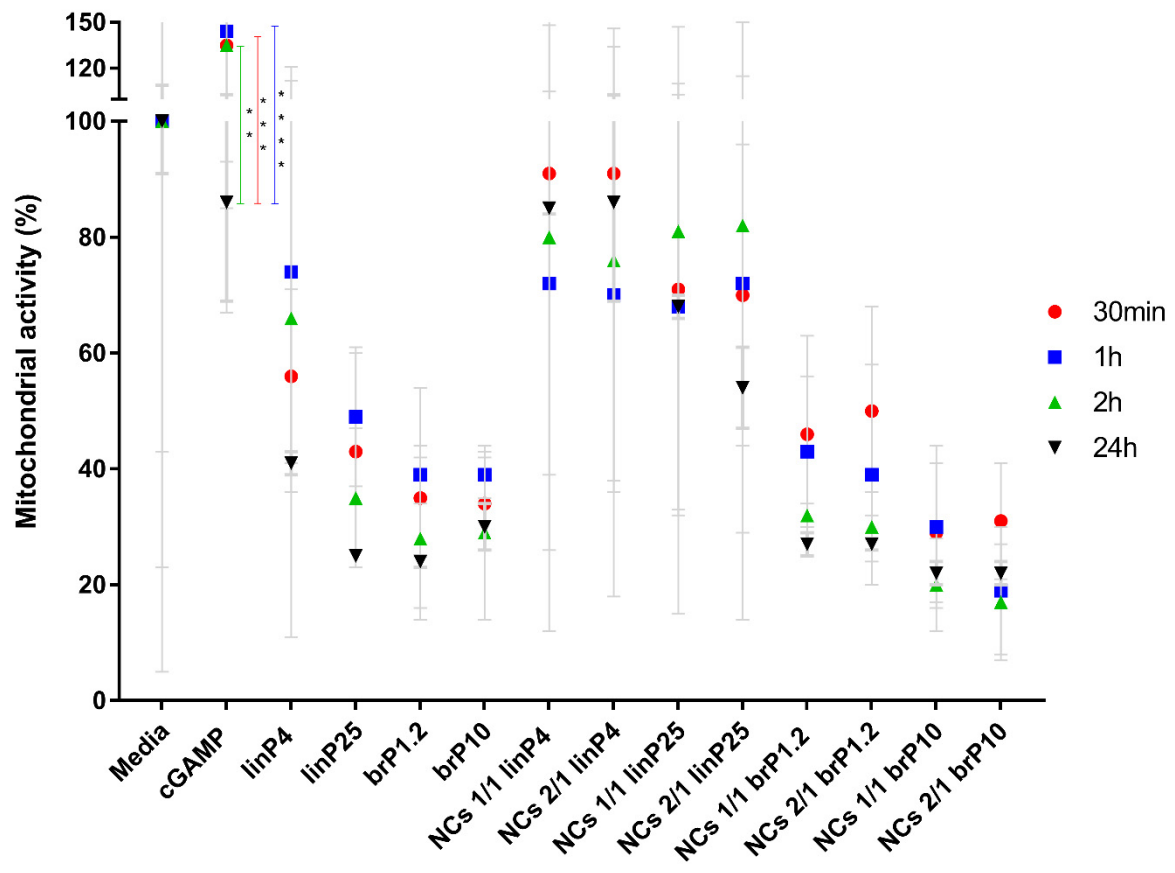
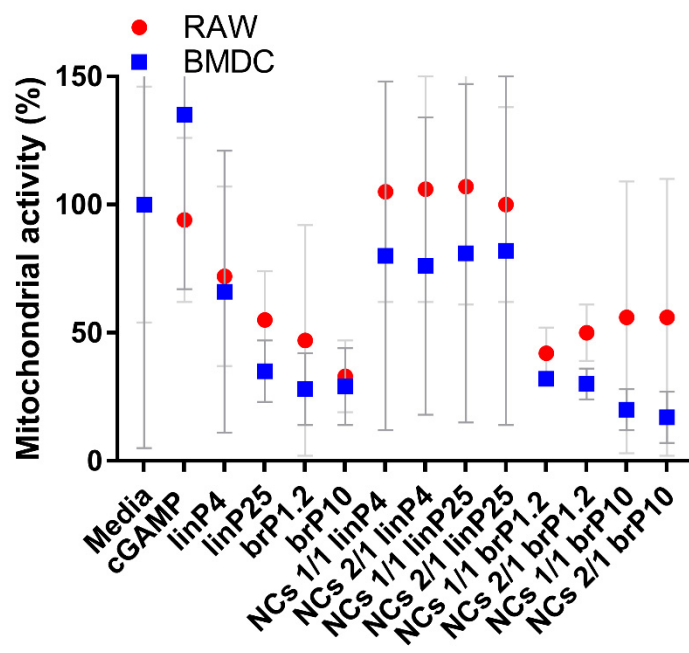


Figure S1. (a) DLS: Size difference between different PEI/cGAMP NC in PBS. (b) DLS and NTA zeta potential measurements of linP25/cGAMP NC in water (c) DLS and NTA electrophoretic mobility of linP25/cGAMP NC in water. n=3; ***p<0.001; ****p<0.0001.

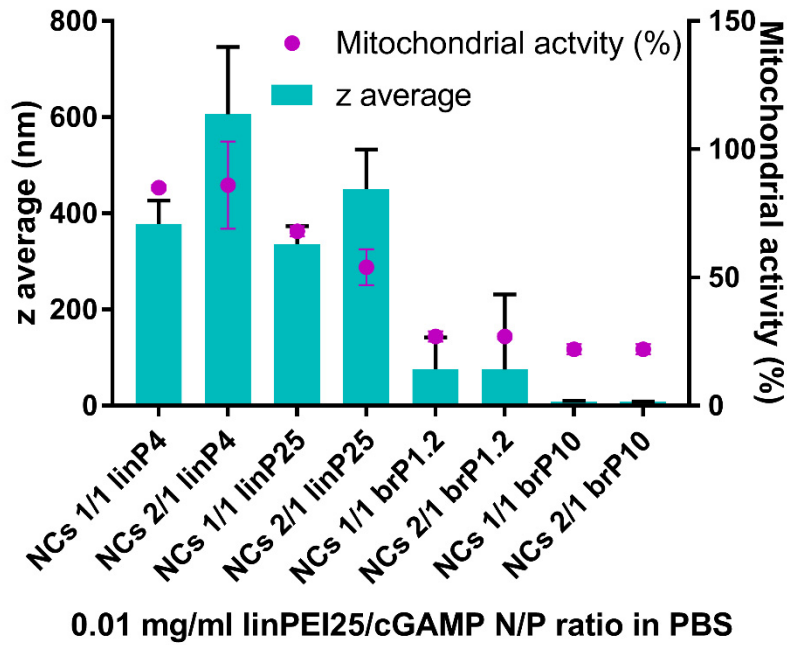
(a)



(b)



(c)



(d)

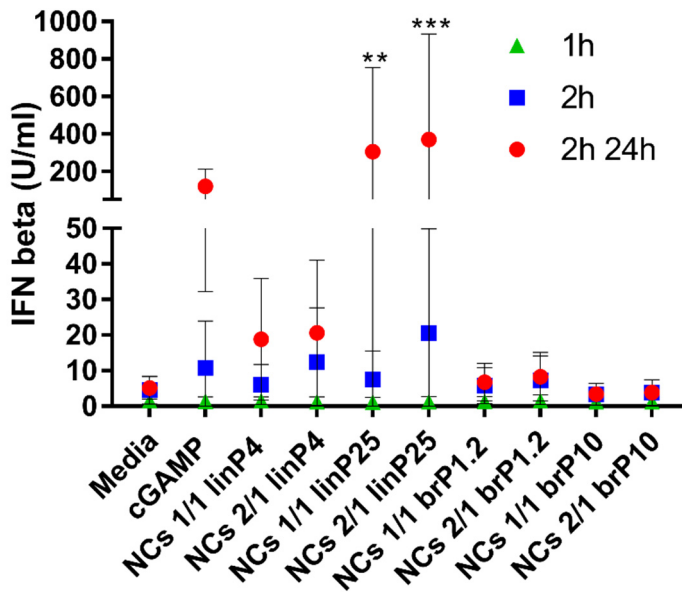
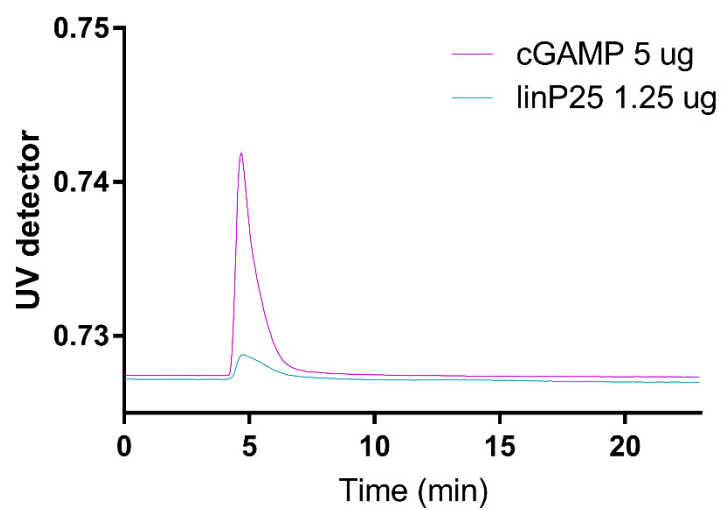
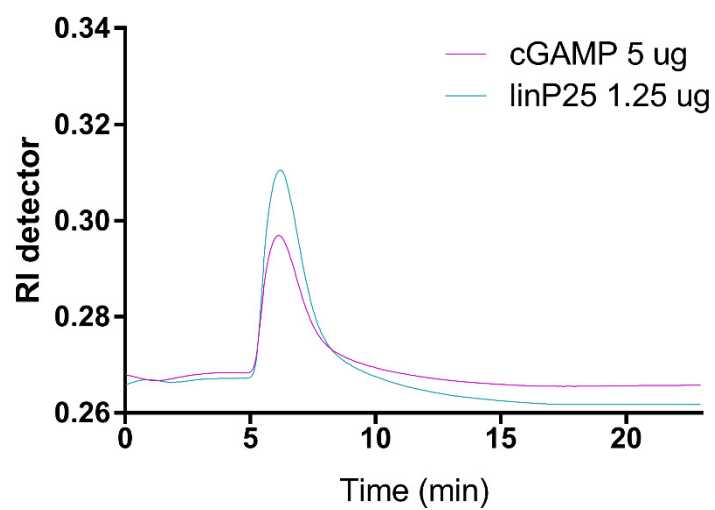


Figure S2. (a) Time-dependent mitochondrial activity (WST-1) of BMDC exposed to empty and loaded PEI/cGAMP NC; (b) Difference in mitochondrial activity (WST-1) between BMDC and RAW cells after 2h exposure to empty or loaded PEI/cGAMP NC; (c) DLS, WST-1, z-average/mitochondrial activity correlation of linP25/cGAMP NC (d) Time-dependent IFN beta expression of BDMD exposed to PEI/cGAMP NC (ELISA). n=3; **p<0.01; ***p<0.001; ****p<0.0001.

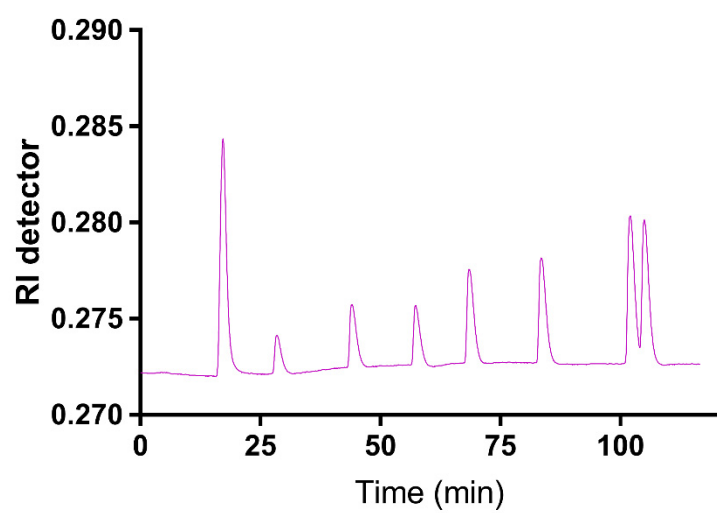
(a)



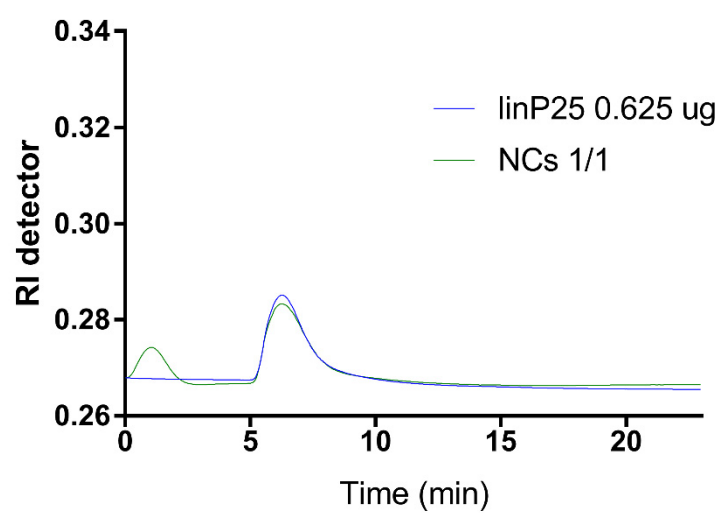
(b)



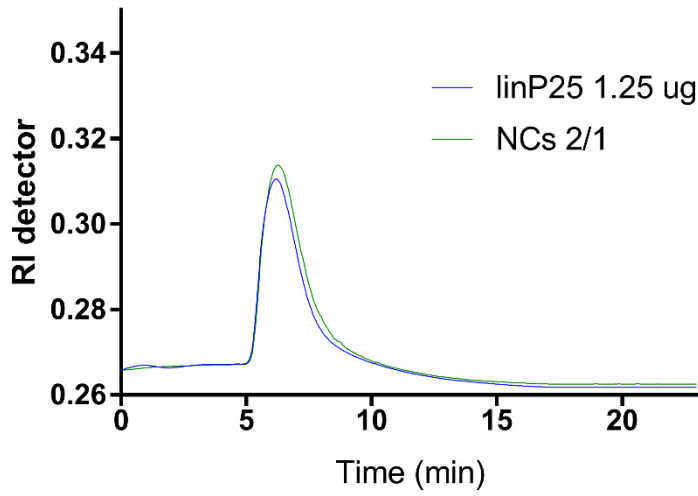
(c)



(d)



(e)



(f)

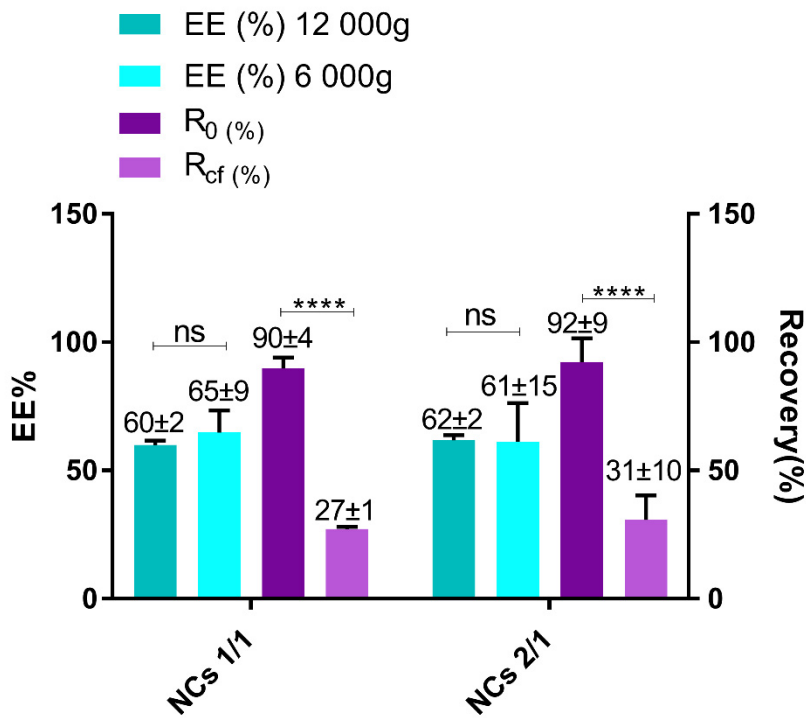
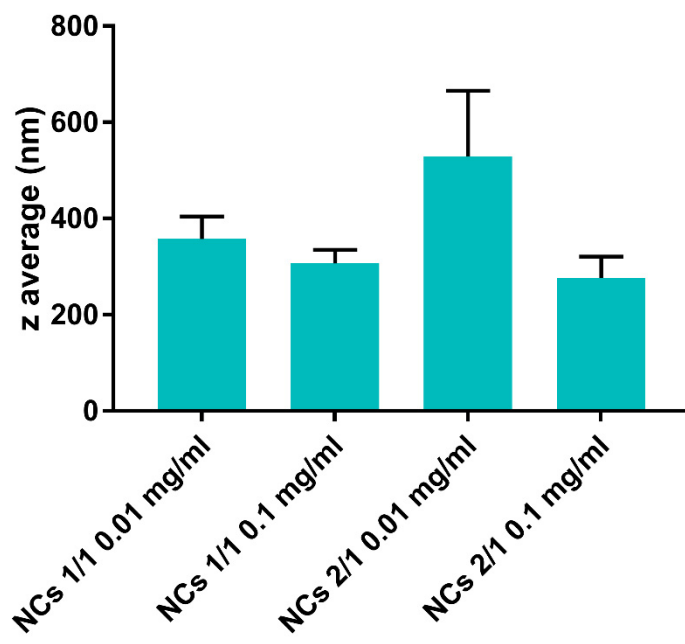
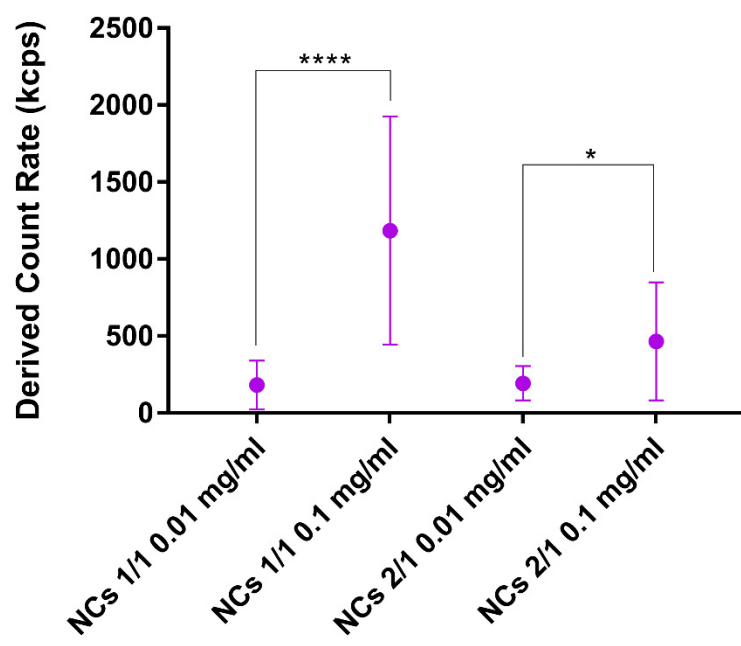


Figure S3. (a) AF4-UV; controls, cGAMP and PEI overlapping (b) AF4-RI; controls, cGAMP and PEI overlapping (c) AF4-RI, calibration curve of cGAMP (d) AF4-RI, graph overlap of cGAMP, linP25 and 1/1 PEI/cGAMP NC (e) AF4-RI, graph overlap of cGAMP, linP25 and 2/1 PEI/cGAMP NC (f) EE(%) comparison at two centrifugal forces 6 and 12,000. Comparison of Recovery (%) with and without cross flow applied of NC. n=3; ****p<0.0001.

(a)



(b)



(c)

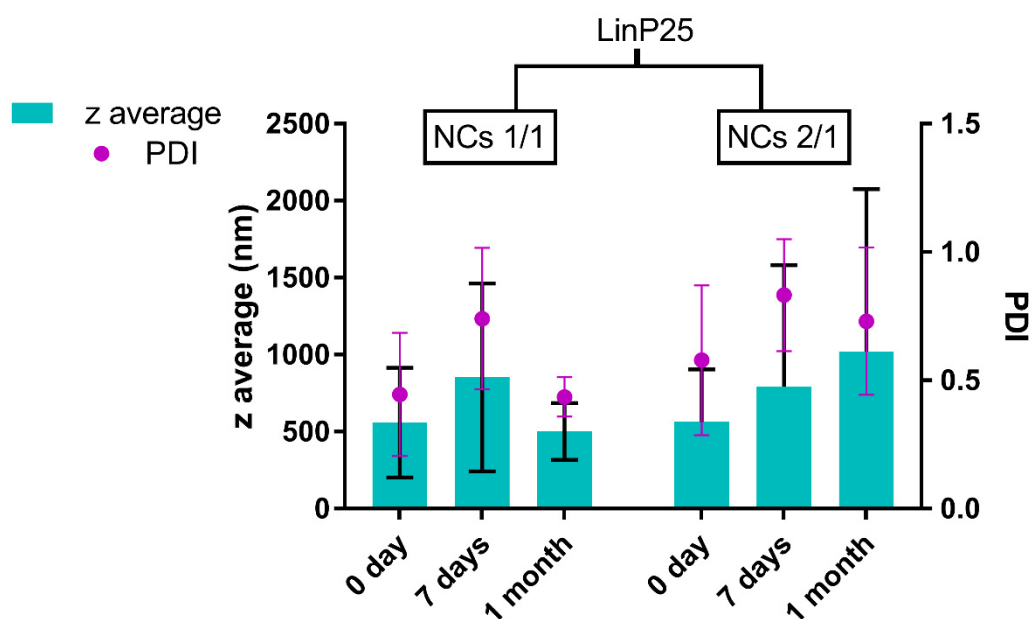


Figure S4. (a) DLS, Zeta average and derived count rate depending on the concentration of linP25/cGAMP NC in PBS (b) DLS, derived count rate at two different linP25/cGAMP NC concentrations 0.1 and 0.01 mg/ml in water (c) Stability of linP25/cGAMP NC size (DLS) over time at 4°C. n=3; *p<0.05; ****p<0.0001.