An Insertion/Self-Fusion Mechanism for Cellular Membranes Immobilization on Porous Silica Beads to Fabricate Biomimic Carriers

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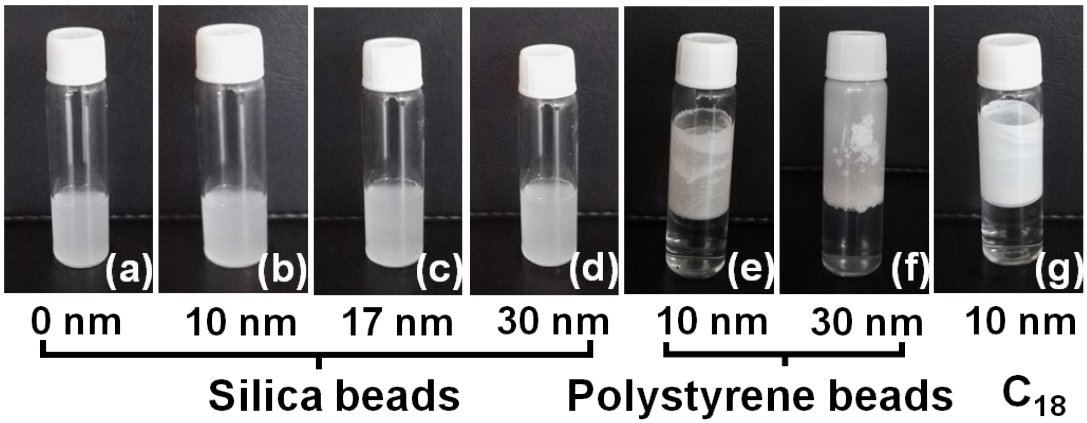

Fig. S1 The photos of silica beads in diameter of 5 μm (a) and PSs in diameter of 5 μm with pore size of 10 nm (b), 17 nm (c) and 30 nm (d) immersed into the cell membrane suspension. In the same diameter of 5 μm, polystyrene beads with pore size of 10 nm (e) and 30 nm (f) and C_{18} with pore size of 10 nm (g) were set as the control. Obvious stratification was observed after immersing polystyrene beads or C_{18} into the cell membrane suspension, demonstrating the effect of the dipole ligands of carriers on the adsorption of cell membranes.

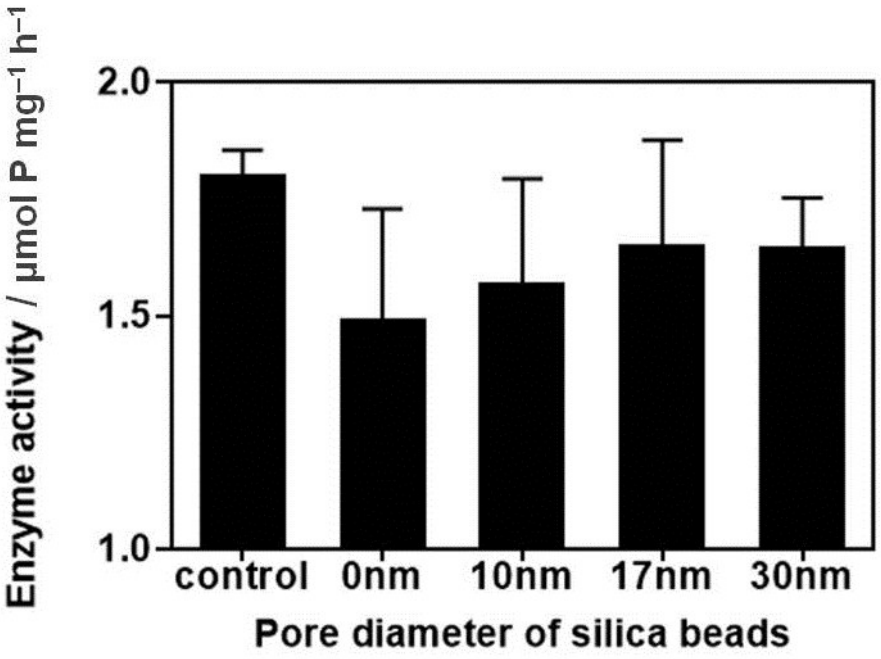

Fig. S2 Na^+ / K^+ ATPase activity of immobilized cell membranes on silica beads and PSs with pore size of 10 nm, 17 nm and 30 nm. The original cell membranes were set as the control with fully activity.

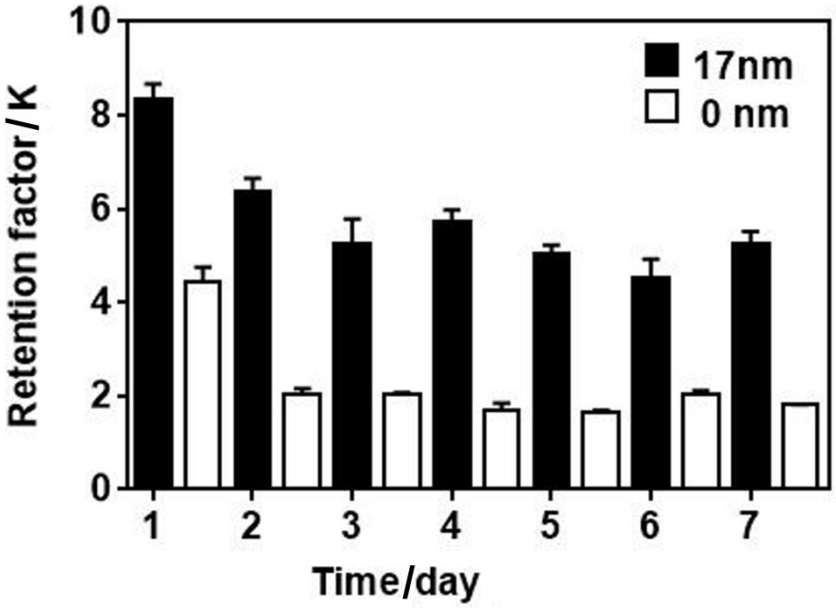

Fig. S3 The stability of CMC columns prepared with silica beads and PSs (17 nm in pore diameter) indicated by the retention factor under continuous use for 7 days. The reproducibility of NM retention factor for nonporous stationary phase and porous stationary phase were displayed as mean ± SD (n=3) .