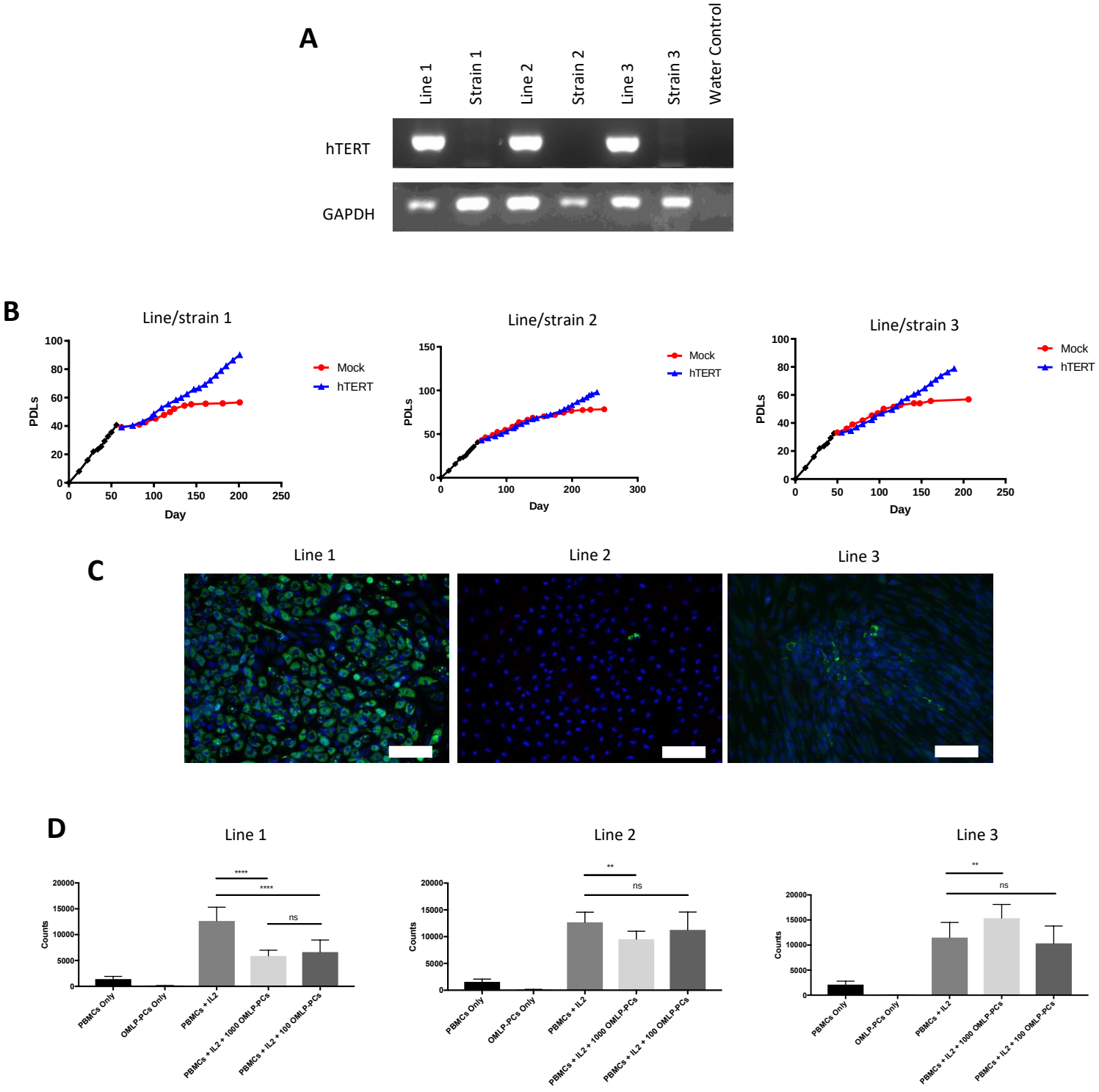
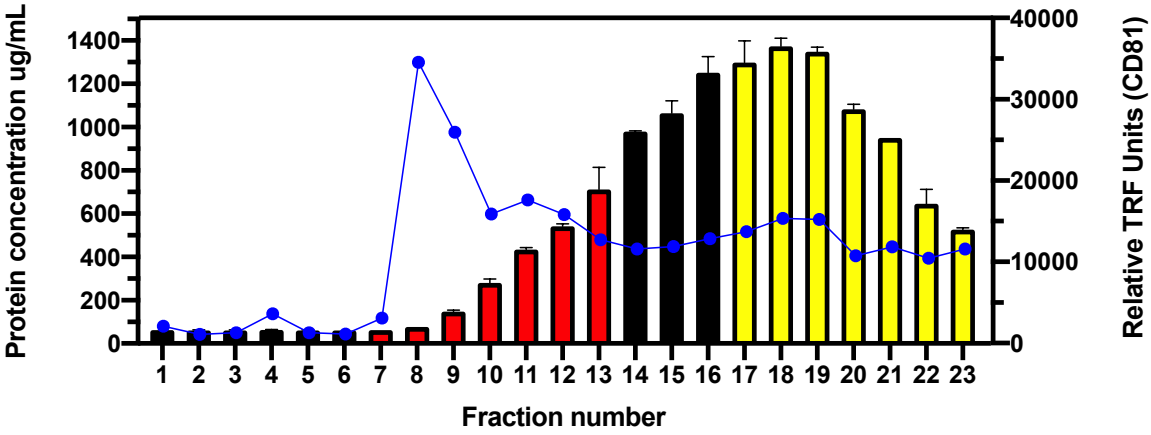
Supplementary F1



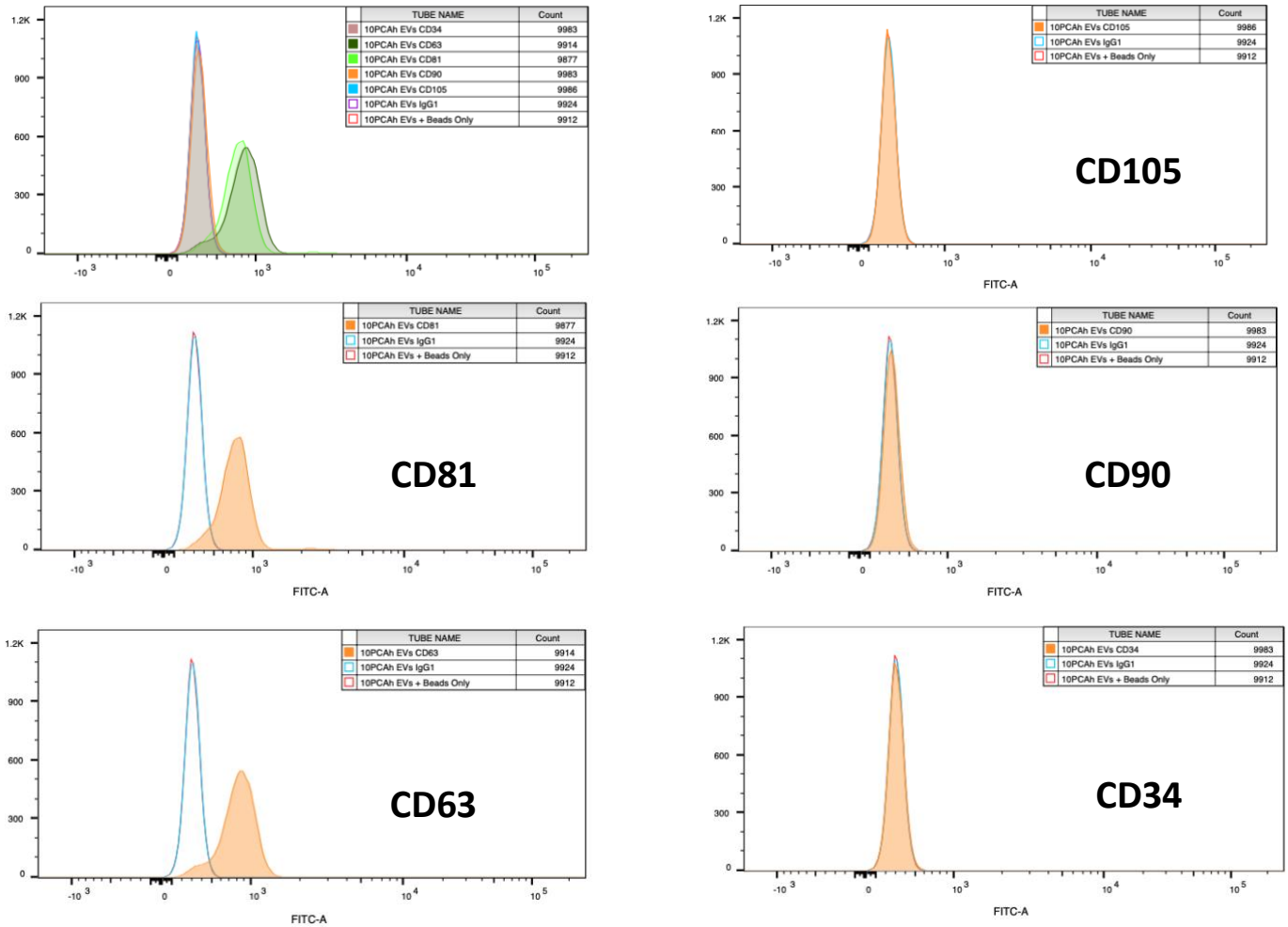

S1: OMLP-PC imortalisation data from 3 immortalised cell strains. hTERT expression was confirmed in all three cell lines by PCR (A) and all immortalised cells demonstrated an extended proliferation capacity (proliferating passed the point of matched cell strain senescence) (B). Adipogenic differentiation was lost in both lines 2 and 3, but maintained in line 1 (C). Functional assessment of all three lines demonstrated a potent immunosuppressive capability in line 1, a low potency immunosuppressive function in line 2 and no immunosuppressive function in line 3 (D). Based on the cell characteristics and functional responses, line 1 was chosen for sEV analysis and is referred to as OMLP-PC$_L$ throughout. Scale bar = 200µm.

Supplementary F2



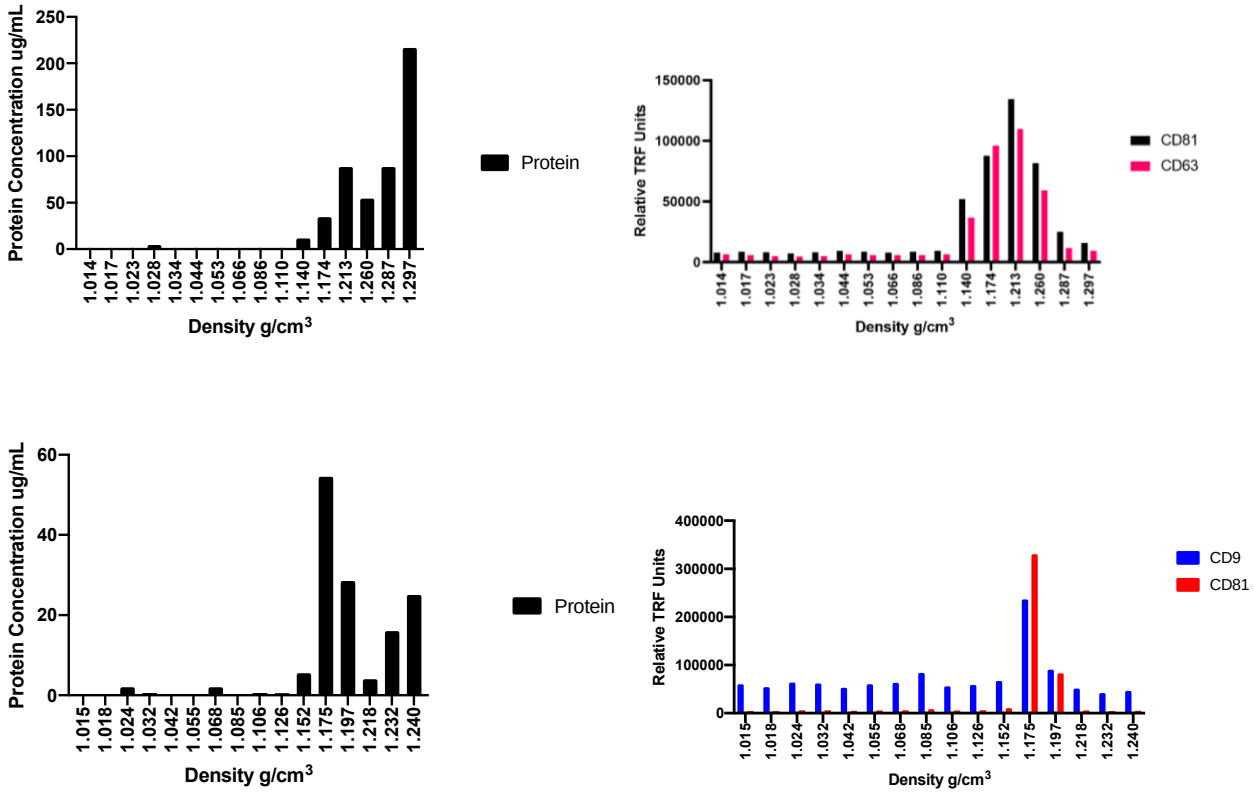

S2: Protein concentration (bars) and CD81 analysis (line) of each 500µL fraction produced from the ExoSpin midi sEV purification. Fractions 7-13 (red) were pooled and used as sEV throughout the manuscript. Fractions 17-23 (yellow) were pooled and acted as an sEV depleted fraction or a matched cell secretome control.

Supplementary F3




S3: Flow cytometric analysis OMLP-$PC_L$ sEVs following a CD63 bead capture. Data demonstrates the captured sEVs are positive for the tetraspannins CD9, CD 81 and CD63 but negative for cell markers CD34, CD90 and CD105.

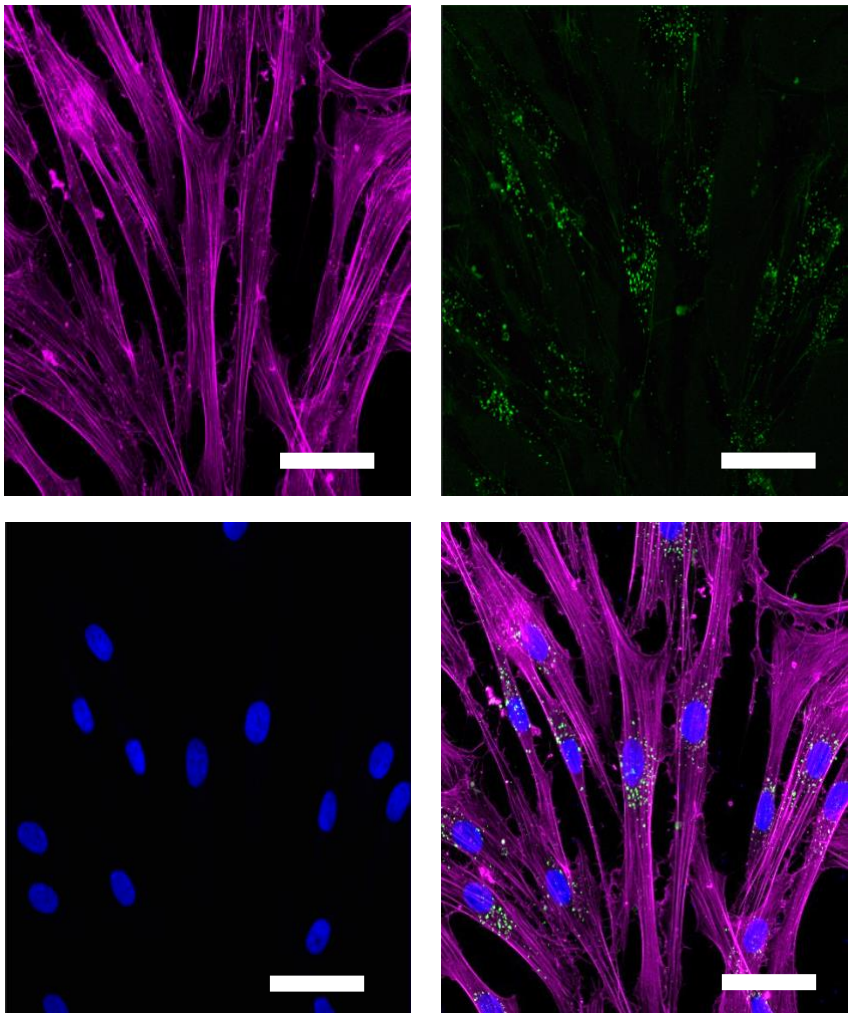
Supplementary F4



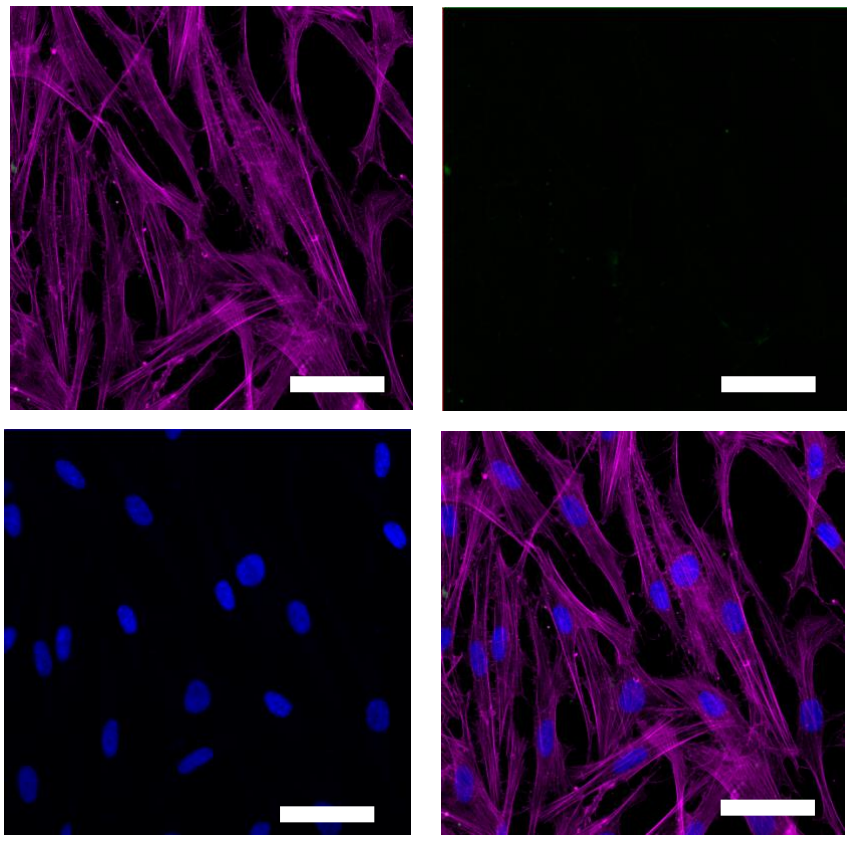

S4: Density gradient separation of sEVs on a continuous sucrose density gradient (0.2M-2.5M sucrose) for both OMLP-$PC_L$ (A) and MSC (B) derived sEVs. 200uL of purified sEVs were loaded on top of a continuous sucrose density gradient and centrifuged for 16hrs at 200 000xg. 16 fractions were collected and analysed for their protein concentration (nanodrop) and for the expression of tetraspannins using a direct ELISA.

Supplementary F5

**A**

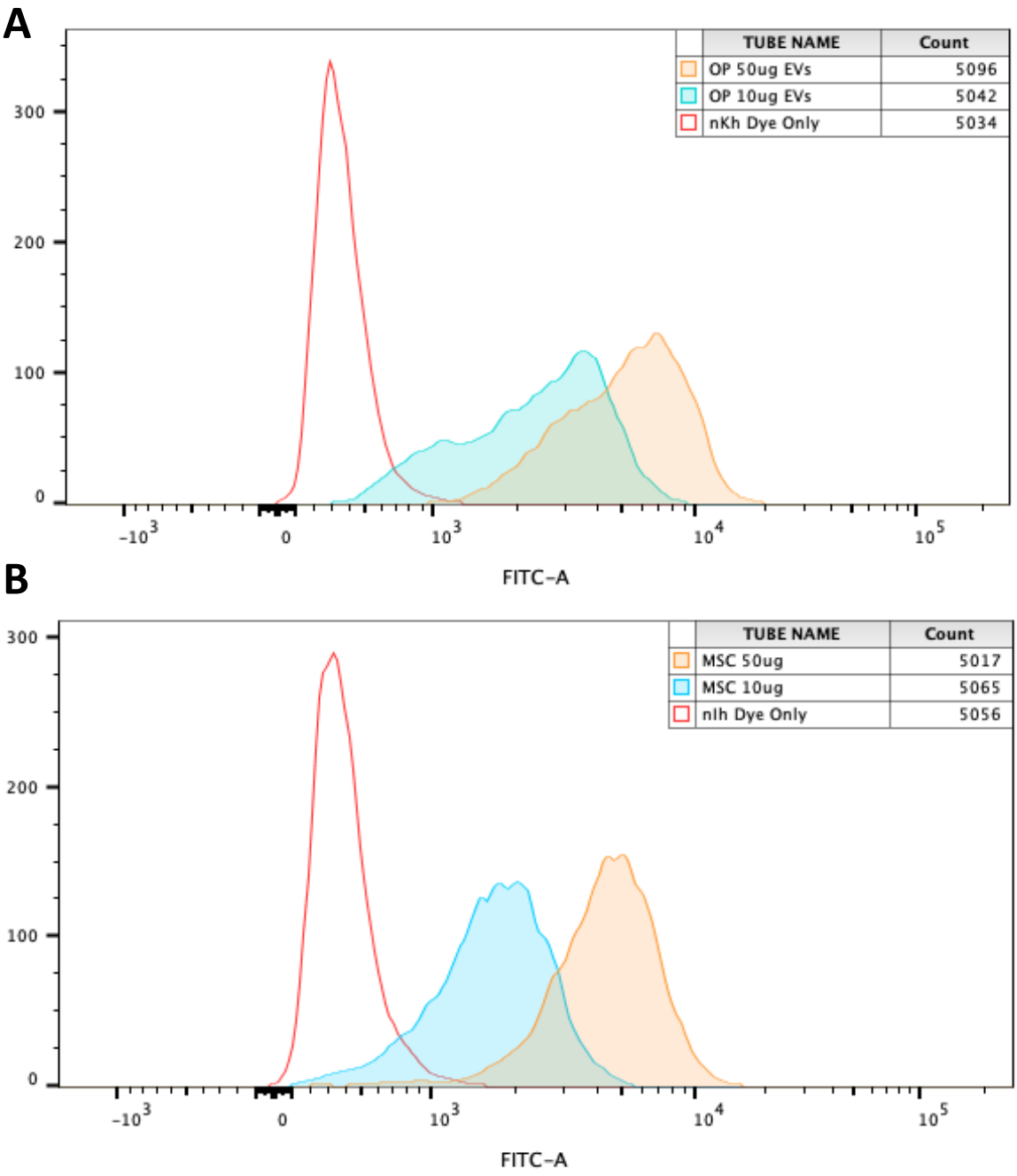


**B**



S5: sEV uptake into dermal fibroblasts. (A) Representative split channel image demonstrating perinuclear location of sEVs in fibroblasts. (B) dye only control image demonstrating 488 labelling must be associated with sEVs and not unbound dye labelling the cells. Scale bar = 50μM

Supplementary F6




S6: Flow cytometric analysis of one representative fibroblast cell line cultured with either OMLP-$PC_L$ (A) or MSC (B) derived sEVs at either 50ug/mL or 10ug/mL for 1 hour. Data demonstrates a dose dependant uptake of sEVs into the fibroblasts.