$\textbf{Table S1.} \ \, \textbf{Scale-Up culture of AME cells in One and two CellSTACK cell culture chamber at P0 and P1 } \\ (n=3)$ 

SL	Passage No.	Culture chamber	Cell Number in million
1	PO	One Cell STACK	$48.3 \pm 3.5$
2	P1	Two Cell STACK	$103.6 \pm 5.68$
3	PO	One Cell STACK	$45 \pm 3.1$
4	P1	Two Cell STACK	$94.4 \pm 9.07$

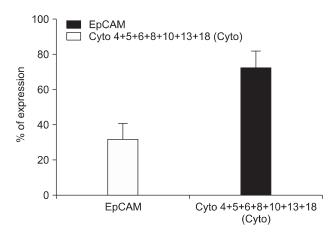


Fig. S1. Flow cytometric analysis of PrePO (uncultured cells) of EpCAM and Cytokeratin  $(n\!=\!7)$ .

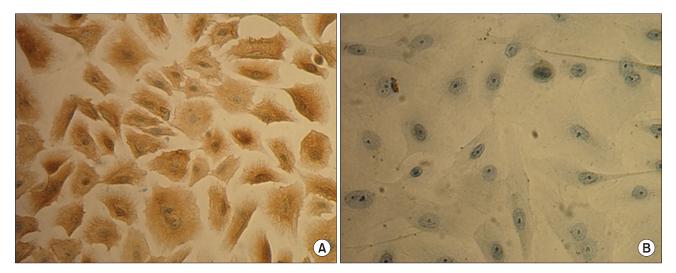


Fig. S2. Immunocytochemistry of AME (A) A representative AE1/AE3 of AME cultured in 5 differen culture media (B) control at P1. The staining with anti pancytokeratin antibody and the binding of the primary antibody was assessed with the biotinylated secondary antibody using biogenex detection kit. Brown colour indicates positive staining and Hematoxylin was applied as nuclear counterstain. n=3 from each group.

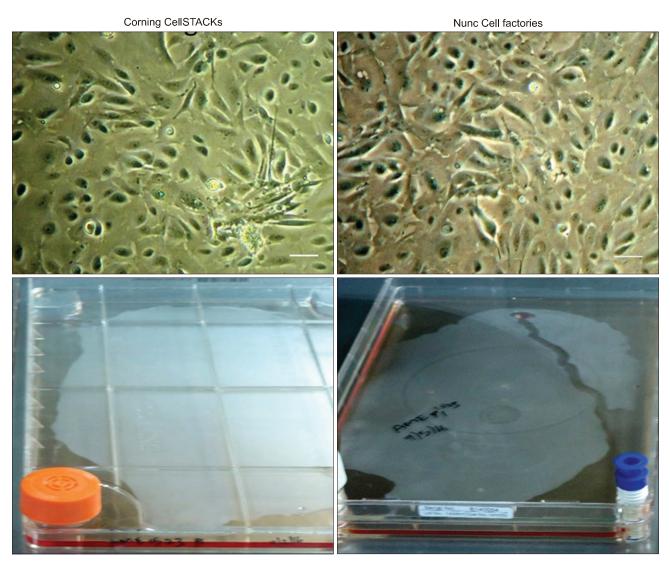


Fig. S3. Large-scale expansion of AME in CellSTACKs and Cell factories.