



Figure 3: Production of YF VLPs by cell pool 1 cultivated in perfusion mode using ATF-2 as cell retention device. (A) Viable cell density (VCD), online biomass measurements and viability during perfusion cultivation. (B) Glucose and lactate concentrations and rates of medium addition (D_{feed}) and harvest (D_{harvest}) during perfusion cultivation. Due to membrane fouling, D_{feed} was higher than D_{harvest} from day 10 on. (C) VLP concentration inside the bioreactor and in the harvested perfusate.