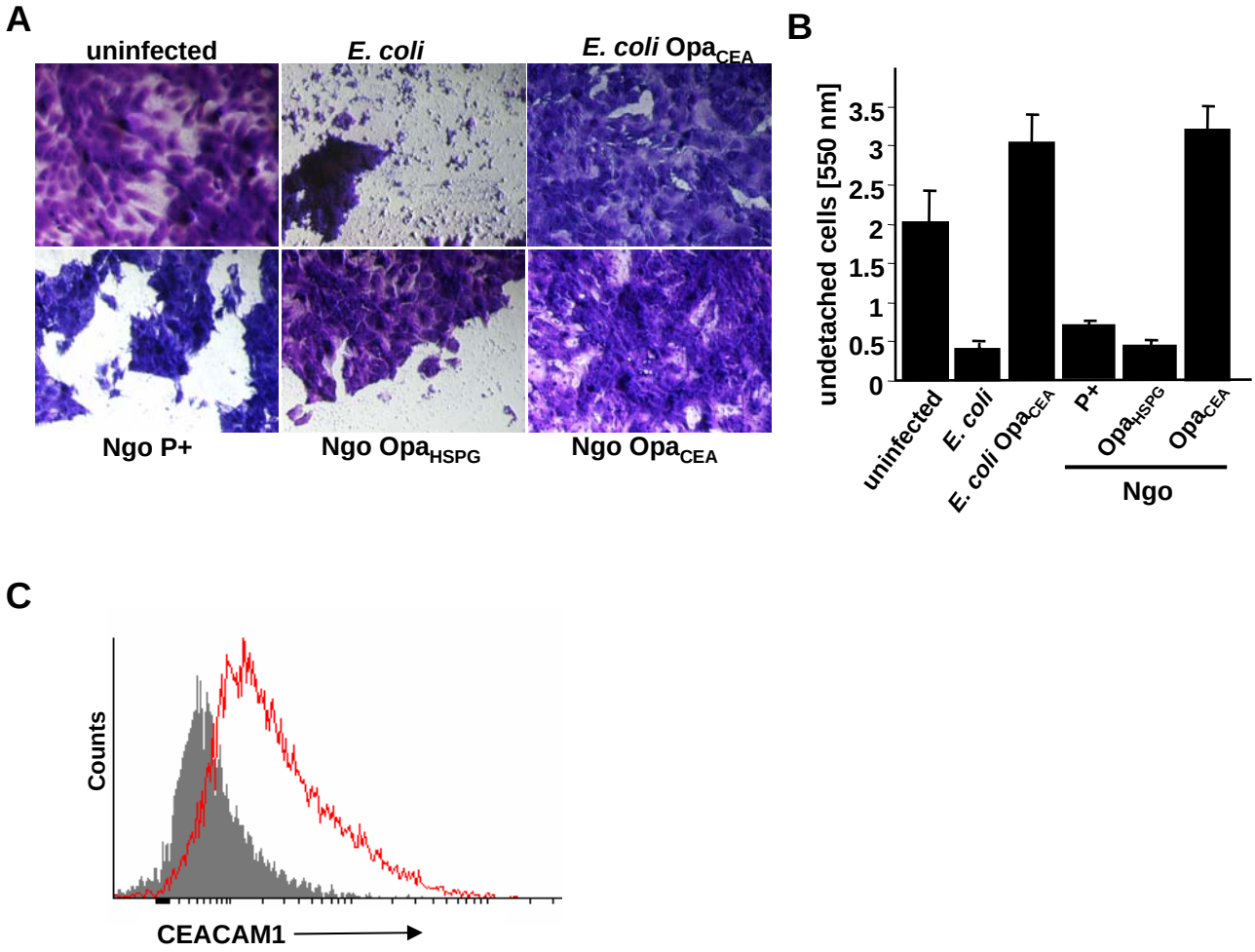

Figure S3. *E. coli* Opa$_{CEA}$ suppresses detachment of primary vaginal epithelial cells. *(A)* Human vaginal epithelial cells (hVECs) cells were seeded in 24-well plates coated with 25 µg/ml collagen. Confluent layers were left uninfected or infected for 14 h with *E. coli*; *E. coli* Opa$_{CEA}$; piliated, non-opaque *N. gonorrhoeae* (Ngo P+); non-piliated gonococci expressing a heparansulphate proteoglycan-binding Opa protein (Ngo Opa$_{HSPG}$); or non-piliated gonococci expressing a CEACAM-binding Opa protein (Ngo Opa$_{CEA}$). Following infection, cells were washed and remaining cells were stained with crystal violet. Representative areas with remaining cells were photographed. *(B)* hVEC cells were infected and stained as in (A). Staining intensity of undetached cells was determined after dye elution in a spectrophotometer at 550 nm. Bars represent mean ± S.D. of 6 wells. *(C)* hVECs were analysed for CEACAM expression by flow cytometry using a mouse monoclonal anti-CEACAM antibody (clone D14HD11; red line). Gray area indicates staining of hVECs with isotype-matched control antibody.