Electronic Supplementary Material (ESI) for Analyst.

New functional membrane protein microarray based on tethered phospholipid bilayers

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Supporting information

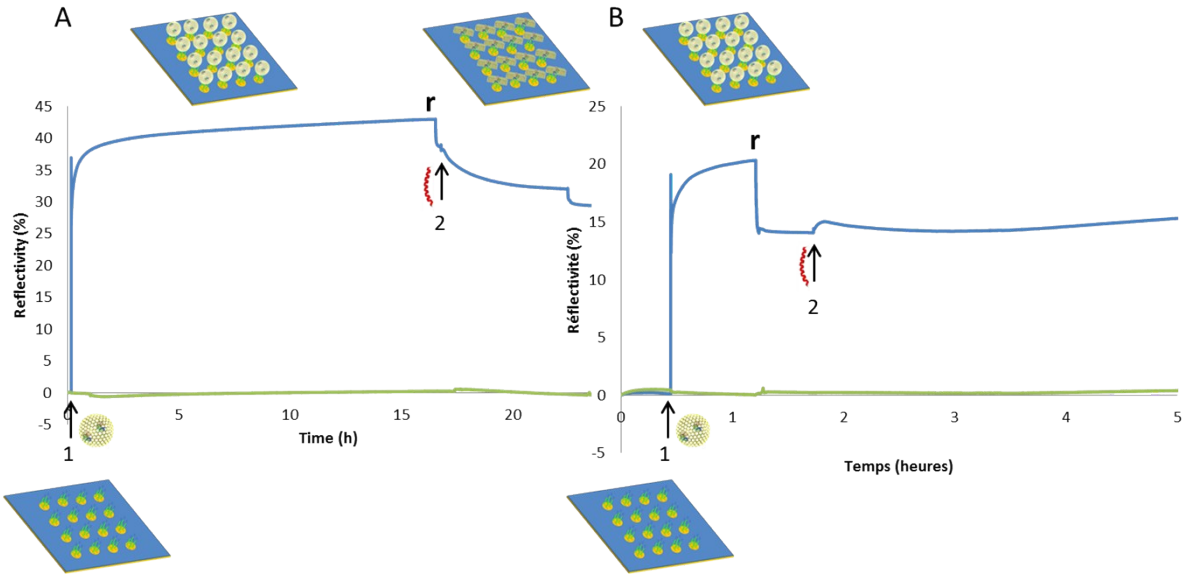

Figure S1. Negative controls for pep-tBLM microarray formation integrating CXCR4. (A) pep-tBLM microarray formation (see figure 1 and 3) using concomitant injection of CXCR4 cell-free expressed proteoliposomes and $NiCl_2$ (arrow 1). After rinsing (r) and injection of fusogenic peptide (arrow 2), vesicle fusion occurred and pep-tBLMs were formed in microspots. (B) Control experiment for pep-tBLM formation using injection of CXCR4 cell-free expressed proteoliposomes without addition of $NiCl_2$ (arrow 1). The reflectivity signal was two times lower than the one previously obtained in section A and after rinsing (r), an important decrease of reflectivity occurred; both of these events characterizing unspecific adsorption of proteoliposomes to peptide tethers. After fusogenic peptide injection (arrow 2), no fusion occurred indicating that the remaining amount of bound proteoliposomes was not enough to promote peptide action, thus confirming that without the presence of nickel ions in the medium, proteoliposomes did not bind specifically to peptide tethers and the density of lipids needed to achieve vesicle fusion was not reached.

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