concentration of the supernatant is then evaluated by means of an ELISA assay.

Examples

Example 1: Sensor of which the sensitive zones consist of mixtures of 2 receptors

1. Fabrication of the sensor

Two simple molecules were used as building bricks (BB) to construct a sensor comprising a support accommodating several sensitive zones combining variable proportions of receptors: lactose (BB 1) and sulfated lactose (BB 2). Nine mixtures with [BB1]/([BB1]+[BB2]) ratios of 0, 10, 20, 30, 50, 70, 80, 90 and 100%, the total concentration being constant at 20 µM. The mixtures were then deposited on a support formed by the gold surface of a prism usable for surface plasmon resonance imaging (SPRi) and were kept in contact with the surface of the prism overnight. The chip thus formed was then washed with ethanol and then dried under a stream of N_2.

Consequently, after self-assembly, a sensor comprising nine sensitive zones, each having different proportions of BB 1 and BB 2, could be obtained, as is indicated in **figure 1**. This sensor was then used to analyze media comprising a single protein by SPRi.

2. Analysis of control media containing a single protein

The analysis of the protein media was carried out in a 10 µl Teflon cell, connected to a degasser and to a peristaltic pump. 500 µl of protein medium were injected. The working buffer solution used comprised 10 mM HEPES, 150 mM NaCl, 0.005% Tween 20, 2 mM $MgCl_2$, pH 7.4, and was filtered and degassed before use. All the experiments were

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