

Peptide chips immobilized with protein layer for protein kinase assay

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To understand protein functions, a number of researches and binding chemistries have been studied to immobilize small molecules, peptides, and proteins in a microarray format for high-throughput analysis. The growing range of applications for peptide arrays proves they have emerged as a powerful proteomic technique because many enzymatic processes, especially kinase, can be studied using peptides as model substrates for applications in biological or pharmaceutical researches. Enzyme-substrate arrays using have recently been reported for protein kinase. The present investigation provides a practical peptide chip for efficient evaluation of kinase activity to reduce steric effect making protein layer with a recombinant strategy. The peptide chip for protein kinase is convenient and effective to use and we expect this method to be valuable for protein chip using peptides or small molecules. [This study was supported by Korea Institute of Science & Technology Evaluation and Planning (KISTEP) and Ministry of Science & Technology (MOST) through its National Nuclear Technology Program].