

Low-Cost Peptide Microarrays for Mapping Continuous Antibody Epitopes

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Abstract

With the increasing need for understanding antibody specificity in antibody and vaccine research, pepscan assays provide a rapid method for mapping and profiling antibody responses to continuous epitopes. We have developed a relatively low-cost method to generate peptide microarray slides for studying antibody binding. Using a setup of an IntavisAG MultiPep RS peptide synthesizer, a Digilab MicroGrid II 600 microarray printer robot, and an InnoScan 1100 AL scanner, the method allows the interrogation of up to 1536 overlapping, alanine-scanning, and mutant peptides derived from the target antigens. Each peptide is tagged with a polyethylene glycol aminoxy terminus to improve peptide solubility, orientation, and conjugation efficiency to the slide surface.

Full text:

http://link.springer.com/protocol/10.1007%2F978-1-4939-3037-1_6

