Detection of Gene HLA-B5801 on A Lateral-Flow Membrane

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Abstract

In this study, a sequence-specified DNA segment was detected on a porous polymer surface, incorporated with an immune reaction and a color development by nano-size gold particles. The Human leukocyte antigen (HLA) B*5801 DNA, gene of Arabidopsis thaliana, Pda13015, human gene PSMA5, and Avian-Influenza (AI) gene H5 were individually detected on the membrane-based lateral-flow strips. HLA-B5801 was determined a detection limit as 1.2 ng, and with a good selectivity over other species genes.

Keywords: Gene HLA-B5801, Lateral flow, Nitrocellulose membrane, Biosensors