Tecan and Siloam Biosciences co-market new ELISA system

I-Micronews
Microfluidic ELISA system.

The system is based on Tecan's Freedom EVO® liquid handling technology and the Siloam Biosciences' OptiMax™ microplate. It offers rapid, sensitive and specific chemifluorescence-based ELISA procedures using exceedingly small sample volumes. The speed, sensitivity and small sample requirements are achieved as a result of the unique microfluidic design of the Optimiser™ technology. All reactions, including analyte capture and detection, occur within an ~5 µl microfluidic reaction chamber. The unique microchannel geometry and small reaction volume favor rapid reaction kinetics. A typical assay requires only a 5 µl sample and each reaction step is completed within 10 to 20 minutes. With wash times, substrate incubations and read times accounted for, a typical Optimiser technology-based ELISA can be completed within two hours. Exploiting these rapid reaction kinetics on a microscale, coupled with microplate automation on the Freedom EVO workstation, allows for extremely high sensitivity or very fast assays.

Automating the process with the Freedom EVO workstation further enhances Optimiser ELISA efficiency and increases throughput. The Freedom EVO automatically loads analytes and reagents into the wells of the microfluidic microplate, and allows the robotic manipulation of multiple OptiMax microplates. Automation with the Freedom EVO offers distinct performance benefits, including improved pipetting precision at very low volumes, precise control of dispensing times allowing for short incubation cycles, precise operation of the repeat load process dramatically improving sensitivity, and increased productivity allowing the user to attend to other tasks while the instrument is in operation. A fully integrated read-out of the chemifluorescent signal is provided by Tecan's Infinite® M200 microplate reader.

Kevin Moore, Head of Applications and Solutions at Tecan, said: *"We are delighted to be working with Siloam Biosciences and are looking forward to bringing our customers a new option for running automated ELISAs using the very exciting new technology of microplate-based microfluidics."*

Aniruddha Puntambekar, Chief Operating Officer at Siloam Biosciences Inc., added: *"Tecan's automation systems enhance the performance of OptiMax automation plates and we are pleased to be able to offer improvements to ELISA users based on Tecan's automation expertise. Together, our technologies provide significant advances to immunoassay testing that will benefit customers of both companies."*

http://www.mdtmag.com/news/2012/09/tecan-and-siloam-biosciences-co-market-new-elisa-system