

## Aushon Moves Into Ultra-Sensitive Immunoassay Space With Launch of New Line

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NEW YORK (GenomeWeb) – Aushon BioSystems this week launched its new line of Ciraplex ULTRA Ultrasensitive assays, which, the company said, allow for detection of analytes with increased sensitivity compared to its standard assays.

The Billerica, Massachusetts-based company also presented at this week's Annual Biomarker and Diagnostic World Congress in Philadelphia a study it undertook in collaboration with Pacific Biomarkers comparing several immunoassay platforms including the Ciraplex ULTRA.

Aushon's Ciraplex assays use the company's arrayer technology to spot up to 12 antibodies per well of a 96-well plate, enabling high multiplexing while also reducing the amount of sample material and antibody required compared to a conventional ELISA. The platform's assays typically measure analytes at levels ranging from the sub-picogram to pictogram per ml range, but with the introduction of the ULTRA line, Aushon is dropping that to the femtogram per ml-level.

Currently, the company offers six ULTRA assays, all targeting cytokines, Scott Van Arsdell, Aushon's vice president, immunoassay technology, told GenomeWeb.

"We're focusing on human cytokines because those are some of our most popular assays, and also the levels in patient samples are typically very low for cytokines," he said. "There are many assays out there where, basically, the cytokines in the sample are below the level of detection, so by increasing the sensitivity you are allowing researchers to gain much more information on their samples."

In the future, the company plans to apply the technology to other analytes for which there is demand for high-sensitivity assays, said Michael Hreczuck, Aushon's senior director of global commercial operations.

Aushon is also working to develop multiplexes of the ULTRA assays, Hreczuck said, noting that few platforms were able to multiplex at femtogram sensitivity levels. With immunoassays, sensitivity typically goes down as multiplexing levels rise due to interference from cross-reactive antibodies.

"We are very aggressively offering multiplexing because there are not a lot of people that are able to do that at a femtogram level," he said. "Our plan is to produce these in two-plex and three-plex kits, and those will be commercially available very soon."

The company is currently beta testing such multiplexed kits with several of its CRO partners, Hreczuck added. Aushon also offers nine-plex assays that are less sensitive than

the single-plex ULTRA assays but still offer sub-picogram per ml levels of detection, he said.

Aushon this week put out data comparing the ULTRA assay for the cytokine interleukin-6 (IL-6) to assays on several other commercially available platforms, including R&D Systems' standard ELISA, Meso Scale Discovery's QuickPlex, and Singulex's Erenna. The study found that the ULTRA IL-6 assay had the best sensitivity, with a lower limit of quantitation of between .016 and .03 picograms per ml, while the MSD assay had an LLOQ of .086 pg/ml and the Singulex assay had an LLOQ of .124 pg/ml. The comparison was done on Aushon's behalf by Pacific Biomarkers, which is one of the company's clients.