

OriGene Publishes Landmark Paper on Revolutionary Proteome Platform for Antibody Specificity Test

Key Publication Further Validates OriGene's Unique Approach and Application of Protein Microarray Technology to Validate Antibody Specificity

ROCKVILLE, MD--(Jan 7, 2013) – OriGene Technologies, Inc. (“OriGene”), one of the industry leaders in producing genome wide products for research and diagnostic applications, has brought the antibody field one step closer to identifying and developing ultra-specific monoclonal antibodies. Specificity of antibodies for research or clinical applications is of critical importance and therefore it is a "must" to demonstrate antibody specificity with high confidence. Leveraging more than ten years of product development expertise, OriGene has generated a breakthrough mammalian-cell expressed antigen chip which contains greater than 50% of the human proteome (“Protein Microarray Technology”). OriGene’s Protein Microarray Technology key utility is to verify diagnostic and therapeutic antibody specificity and identify cross-reactivity. Antibody cross-reactivity is a major cause of concern throughout the industry with the development and commercialization of diagnostic and therapeutic antibodies.

As published in BMC Biotechnology 2012, 12:88, OriGene’s Protein Microarray Technology chip was successfully used to evaluate the specificity of the commonly used anti-ERCC1 antibody called 8F1. This ERCC1 antibody is being explored as a predictive diagnostic biomarker for cisplatin-based chemotherapy. OriGene was able to utilize its proprietary technology to determine that the 8F1 antibody cross-reacts with a previously unknown nuclear protein called PCYT1A and thus is not suitable for use in IHC assays for ERCC1 detection (View [Abstract](#)).

“This result is important, as it could explain some of the inconsistencies seen in comparative studies done on the 8F1 antibody. Using antibodies which cross-react with a nuclear protein PCYT1A when testing for ERCC1 may potentially lead to an incorrect IHC test result.” says Wei-Wu He, Ph.D, who is CEO of OriGene and one of the co-authors of the scientific study.

OriGene utilized its Protein Microarray Technology to screen 18 monoclonal antibodies to identify two unique UltraMAB™ antibody clones, 4F9 and 2E12, and confirmed that these are truly “mono-specific”. Every UltraMAB™ antibody is validated for IHC and for immunoassay analysis, and verified to have non-specific cross-reactivity by utilizing OriGene’s Protein Microarray Technology. Consequently, each UltraMAB™ is specificity verified to an unprecedented level, ensuring superior performance for IHC applications. In 2012, OriGene generated over 20 UltraMAB™ antibodies and its future plans are to launch new UltraMAB™ antibodies on a regular basis.

Detailed information about the Protein Microarray Technology and a complete listing of the UltraMAB™ antibody product line is available at www.origene.com/UltraMAB, where customers can learn more about OriGene’s unique approach to ultra-specific monoclonal antibody development.

About OriGene

OriGene Technologies, Inc. develops, manufactures, and sells genome wide research and diagnostic products worldwide. OriGene's research business offers one of the world's largest collections of cDNA

clones, human proteins, antibodies and assays for use to study gene functions. Leveraging the recent advances in the human genome, OriGene utilizes its innovative R&D in the U.S. and large scale capacity in China to produce an extensive array of ultra-specific monoclonal antibodies called UltraMAB™ which offers significantly value added diagnostic benefits for disease screening and personalized medicine treatment. OriGene's Protein Microarray Technology is used for QC diagnostic and therapeutic specificity and other protein-protein interactions. For more information, visit www.OriGene.com.

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