OriGene® Launches CytoSections™: an Alternative Positive Control for IHC and ISH

Rachel Gonzalez, Ph.D., senior scientist, OriGene Technologies® (Booth #913), talked about the launch of their new product, CytoSection™.

Q: What are CytoSections?

A: CytoSections are ready-to-use FFPE sections of cell pellets expressing targeted protein derived from gene-specific cDNA clones. These have been tested for IHC and ISH assays, hence they are an ideal tool for laboratories working on new biomarker discovery and antibody development.

Q: What are key issues addressed by CytoSections?

A: Limited access to verified positive control tissues, difficulties collecting tissues with mutant targets, changes in gene expression levels (as the tissue blocks are sectioned), and lack of a standard uniform tissue across multiple labs are some of the frequently heard complaints from laboratories performing IHC and ISH regularly.

CytoSections address these critical issues. With over 20,000 expression plasmids in stock, OriGene can produce over-expression cell pellets for most human and mouse target proteins and its mutants. The overexpression of the target protein is verified. In addition, these are laboratory-cultured cells produced under stringent quality controls process; enabling us to provide reproducible and unlimited number of control slides.

Q: What are the critical features of CytoSections?

A: Many features are unique to CytoSections. The ability to customize CytoSections as per research needs is a unique feature that researchers loved during the prelaunch test period. With our collection of extensive sequence-verified cDNA clones, we can create a mutant, express it in human cells, and verify its expression by western blot and IHC. Another feature that customers love is that CytoSections behave like an FFPE section. Hence, these can easily be integrated into the regular laboratory IHC/ISH workflow, thus acting as process control.

A major pharma customer said, ‘The CytoSection approach has been very effective and will become an integral part of our workflow. Thanks to all at Origene for their support.’

Q: For how many targets are CytoSections available?

A: OriGene offers CytoSections for more than 20,000 human and mouse targets for IHC and ISH. If you don’t see your target gene of interest on our website, try the custom option. Just write to our tech support team at techsupport@origene.com.

Q: How are CytoSections validated?

A: Validation of CytoSections is a three-step process. The first step involves sequence verification of TrueORF cDNA clones used for generating CytoSections. The second step is the validation of the expression of the target protein by western blot. The third step is validation by an IHC assay — only is target-specific antibody is available.

Q: Can CytoSections be used for any downstream application (e.g., commercial, genomic, in situ, etc.)?

A: Yes. We have tested it for immunohistochemistry and In-situ hybridization techniques. We have a poster (Abstract #2803) presented on Tuesday, April 12, between 9:00 a.m. and 12:30 p.m., titled ‘A renewable IHC control tool CytoSections for defining MAGEA3, MAGEA4, and MAGEA9’ in Exhibit Hall D-H. Poster session 32.

To find the CytoSection™ for your target gene of interest, scan the QR code.

