

CD BioSciences Announces New Immunofluorescence-Based Services

CD BioSciences has recently launched its new services based on immunofluorescence technology.

NEW YORK, UNITED STATES, June 15, 2023 /EINPresswire.com/ -- [CD BioSciences](#), a US-based biotechnology company focusing on the development of imaging technology, has recently launched its new services based on [immunofluorescence](#) technology to provide researchers with diverse analysis and accurate results on fixed or fresh samples. These new services can be applied to the detection of circulating autoantibodies/antigens in cells and cell membranes/immune complexes in biopsy material/circulating immune cells.

Immunofluorescence is one of many techniques used in biomedical research and diagnosis. It uses the sensitivity and selectivity of fluorescence to analyze biological tissues. The basic reaction in immunology is the antigen-antibody reaction. When an antigen-antibody reaction occurs, the high specificity of the reaction means that once one factor is known, another factor can be identified. In the immunofluorescence technique, an antibody (or antigen) is labeled with a fluorochrome that does not interfere with the activity of the antigen and antibody, binds to its counterpart, and shows a specific fluorescent reaction under a fluorescence microscope. Immunofluorescence techniques can be used to detect proteins and other biomolecules in cells and tissues.

Scientists can utilize immunofluorescence technology for a variety of laboratory tests and observations, providing a new perspective on the samples being analyzed. Researchers can also apply this technique to fixed or fresh samples to obtain multiple analysis and accurate results. CD BioSciences now offers customers with customized services based on immunofluorescence technology for scientific studies, including detection techniques of Fluorescence Microscopy, Laser Scanning Confocal Microscopy, and Flow Cytometry.

The basic function of a fluorescence microscope is to transfer excitation energy to a fluorescent dye in the specimen, separate the weakly emitted fluorescence from the excitation light, and deliver it to a detector to produce a contrast image. The specificity and high sensitivity of Fluorescence Microscopy allow it to study cellular and subcellular structures in biological tissues at high resolution. It provides three-dimensional spatial information and temporal variation of spatial information in living cells.

Confocal Microscopy is a well-established biomedical research tool that provides enhanced light

microscopic imaging of cells labeled with fluorescent dyes. Its main application is the high-resolution analysis of subcellular components in three dimensions. The main difference to conventional epifluorescence microscopy is the imaging method. The former provides an image of the entire specimen, while Confocal Microscopy focuses on a single spot of light and scans the specimen line by line.

Flow cytometry is a technique used to measure the physical or chemical properties of cells and other biological particles as they pass through a measuring device in a single line. Measurement of immunofluorescence is a specific application of flow cytometry. It is particularly useful for cell sorting based on the presence or absence of fluorescent signals, and allows precise definition and quantification of cell population heterogeneity.

For more information about CD BioSciences' new Immunofluorescence-Based Services for scientific research, please visit <https://www.bioimagingtech.com/immunofluorescence.html>.

About CD BioSciences

CD BioSciences is a biotechnology company committed to the development of imaging technology for many years. Its scientists can utilize high-content imaging, nanoparticle imaging, imaging flow cytometry, time-lapse imaging, and other techniques to image cell structure, cell migration, cell proliferation, pathogen infection mechanisms, and interactions between protein molecules.

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