

New Antibody Arrays by Creative Biolabs Boost Immune Signaling Research

Creative Biolabs recently updated its antibody chip platform, expanding product arrays for phosphorylation signaling and cytokine detection.

SHIRLEY, NY, UNITED STATES, May 27, 2025 /EINPresswire.com/ -- Intercellular signaling, communication, and immune regulation are among the complex mechanisms underlying disease processes. Thus, Creative Biolabs has furthered its efforts to enhance its antibody chip platform to follow the direction of dealing with such complexities.

Enhanced Signaling Pathway Analysis Capability

In relation to eukaryotic cell lines, stress response and a myriad of cellular activities occurring within the



cell are triggered by the MAPK signaling pathway. The MAPK pathway is a key signaling cascade activated by phosphorylation events, which regulate cellular responses. EGFR acts upstream of MAPK, and its activation involves phosphorylation at multiple critical sites, modulating downstream signaling. The newly developed MAPK phosphorylation antibody chip covers key phosphorylation sites on MAPK family members, including ERK, JNK, and p38, enabling dynamic monitoring of signaling cascades across various time points and stimulation conditions.

EGFR (Epidermal Growth Factor Receptor), an important upstream signaling node of MAPK, is widely expressed in epithelial tissues and shows abnormal expression or mutations in various cancers, including lung, breast, and colorectal cancers. The concurrently updated EGFR phosphorylation antibody array supports the analysis of multiple phosphorylation sites on EGFR and key interacting molecules within the pathway, making it suitable for drug target validation and inhibitor screening.

"Signaling pathways do not operate in isolation, especially within the complex regulatory networks formed between EGFR and MAPK in tumor and immune dysregulation contexts," an expert from Creative Biolabs noted. "Profiling multiple phosphorylation sites concurrently enhances the detection of pathway crosstalk and feedback regulation."

Expansion of Immune Factor Arrays

Beyond intracellular phosphorylation dynamics, Creative Biolabs has enhanced detection capabilities for immune factors, particularly expanding coverage of the interleukin (IL) family.

The recently released <u>interleukin antibody array</u> is capable of detecting several pro-inflammatory and regulatory cytokines, including IL-1 β , IL-2, IL-6, IL-10, and IL-17, as well as other cytokines, from serum, cell culture supernatants, and tissue lysates. The combination of these with the phosphorylation arrays enables comprehensive analysis of upstream and downstream signaling interactions in response to stimulation or drug treatment.

As the expert noted, "In many of the projects we support, researchers increasingly integrate intracellular phosphorylation with extracellular cytokine analysis. Such integration is time efficient and increases the biological interpretation of results." Creative Biolabs also ensures that its service capabilities in signal pathway research will be enriched further with this antibody chip update.

For more information, please visit https://www.antibody-creativebiolabs.com/.

About Creative Biolabs

Creative Biolabs is a leading biotechnology service provider dedicated to offering high-quality antibody development, protein analysis, and drug screening solutions to global researchers and biopharmaceutical companies.

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