Creative Bioarray Developed The Proprietary Cell Immortalization Service for Research Application

Creative Bioarray announced the release of its cell immortalization services that can significantly expand the replication capacity of your target cells.

NEW YORK CITY, NY, UNITED STATES, October 31, 2024 /EINPresswire.com/ -- Creative Bioarray, as one of the leading biotechnology companies focused on providing high-quality products and services for life science research, announced the release of its cell immortalization services that can significantly expand the replication capacity of your target cells.

There are several ways to generate immortalized cells. One method is to introduce viral genes that partially deregulate the cell cycle, such as EBV, SV40 T antigen, and HPV-16 E6/7 genes. The cellular gene encoding human telomerase reverse transcriptase (hTert) has been successfully used to expand several cell types that retain important properties in vitro. However, this approach is limited to certain cell types, as others either require the synergistic effect of additional immortalizing genes or the inactivation of tumor suppressor genes. Another approach is to employ a library of lentiviral vectors encoding a few selected genes, which is applicable to different cell types and allows the retention of typical cell properties. Creative Bioarray will select the best approach to establish your personalized cell line.

With a wealth of cell-based immortalization experience, Creative Bioarray has been able to successfully immortalize a variety of mammalian cells such as Immortalized Hepatocytes, Immortalized Microglia with different immortalization methods. If the cells are not directly available, Creative Bioarray will also establish an isolation protocol and then perform a custom isolation for you.

Primary cells
Immunized cell lines can serve as simple models of more complex biological systems, for example, immortalized neural cell lines can be used to study neuronal development and functional restoration in models of neurological diseases.

Immune cells
Immunotherapy is a cancer treatment that enhances the body's natural defenses against cancer. Immortalization is the best way to generate large numbers of immune cells for treatment. For example, Wu et al. developed a method to establish an immortalized and constitutively activated

human primary blood DC line and explored various modifications to the DC to enhance their immunotherapeutic potential.

Stem Cells
Stem cells have been shown to provide an abundant source of renewable cell replacements. However, as expected for somatic stem cells, after a limited number of cell divisions in culture, stem cells will eventually undergo growth arrest and senescence. This limits their use in biotechnology and pharmacological studies that rely on large-scale high-throughput assays. Therefore, stem cell immortalization provided an initial attempt to overcome these limitations, resulting in the establishment of immortalized stem cell lines. Immortalized human MSCs can continuously produce angiogenic factors and cytokines, such as HGF and VEGF.

“While we customize immortalization according to needs, our laboratory scientists can also greatly improve the replication capacity of the desired target cells.” said Hannah Cole, the marketing director of Creative Bioarray, she also claimed, “We are making this process cost-effective and saving time for our customers.”

About Creative Bioarray
Creative Bioarray specializes in providing integrated solutions for various biological studies. Operating for years, we are committed to delivering high-quality products and services to facilitate our clients in advancing their science research.

Hannah Cole
Creative Bioarray
16313868241
email us here