

# Creative Biolabs Set to Enhance Biotherapeutic Discovery with Phage Display Library Construction Services

*Creative Biolabs announced the strategic expansion of its comprehensive phage display library construction services.*

SHIRLEY, NY, UNITED STATES, March 11, 2026 /EINPresswire.com/ -- [Phage display technology](#) has long been the gold standard for the high-throughput screening of peptides, antibodies, and functional proteins. However, the traditional M13 system occasionally faces challenges with large protein inserts or molecules that require a reducing cytoplasmic environment for proper assembly. To bridge these critical gaps, Creative Biolabs has optimized its T7 and [T4 phage display](#) platforms, offering unprecedented versatility for drug discovery, diagnostic development, and next-generation vaccine design.



Creative Biolabs

## Overcoming Secretion Bottlenecks with Premier T7 Services

The [T7 phage](#) system represents a significant leap forward for researchers working with proteins that are difficult to express via the standard secretory pathways of *E. coli*. As a lytic phage, T7 assembly occurs entirely within the host cytoplasm, with the progeny released only upon cell lysis. This unique mechanism allows for the successful display of proteins that might otherwise be toxic to the host's secretion machinery or those that require complex intracellular folding.

"Our T7 platform is engineered for speed and stability," stated a lead scientist at Creative Biolabs. "Because the T7 phage is extremely robust, it can withstand harsh biopanning conditions—such as high temperatures or varying detergent concentrations—that would typically denature other phage types. This makes it an ideal choice for identifying high-affinity

binders in challenging environmental or clinical samples, particularly for cDNA library screening."

### Scaling Discovery with Advanced T4 Phage Technology

For projects involving exceptionally large or multi-subunit protein complexes, Creative Biolabs provides a specialized T4 phage display service. A standout feature of this platform is its "double display" capability, utilizing both the highly outer capsid protein (HOC) and the small outer capsid protein (SOC).

### The Hi-Affinity™ Advantage

Every library constructed at Creative Biolabs is powered by the proprietary Hi-Affinity™ platform. This ensures that customers receive libraries with exceptional diversity—often reaching  $10^{10}$  to  $10^{12}$  independent clones—and high functional titers. From the initial de novo gene synthesis and oligonucleotide design to the final bio-validation using next-generation sequencing (NGS), Creative Biolabs provides a seamless, end-to-end workflow tailored to the specific scientific objectives of each client.

"The quality of the VHH libraries constructed by Creative Biolabs is unparalleled. We have used their services for multiple antibody discovery campaigns, and the results are consistently reproducible. They are our go-to partner for all phage display needs," said a customer.

Learn more, please visit <https://www.creative-biolabs.com/>.

### About Creative Biolabs

Creative Biolabs is a leading biotech service provider with over a decade of experience in antibody discovery and immunotherapy. Staffed by a team of world-class scientists, the company remains dedicated to supporting pharmaceutical and academic partners in solving the most complex challenges in modern research through innovation and technical excellence.

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