

GenScript's DNA Encoded Chemical Library Kit – GenDECL™

Elevate your chemical biology research and hit discovery with GenScript's GenDECL Kit

In collaboration with a distinguished technology expert boasting over a decade of experience, GenScript proudly presents the GenDECL Kit—a ready-to-use, commercially accessible solution redefining drug discovery efforts.

Built on the foundation of DNA-encoded library (DEL) technology and combinatorial chemistry, the GenDECL Kit encodes chemical molecules with unique, amplifiable DNA barcodes that are pooled into a single tube to be used against a target protein. Scientists can now skip complex chemical library development, synthesis, and analysis, saving time and effort without sacrificing precision or incurring high costs.

Advantages of GenDECL Kit



• Diverse Drug-Like Compound Library

The GenDECL Kit is your gateway to a vast collection of 22 sub-libraries, housing +600 million unique molecules. The molecule constructs are designed to mirror structures that have been recognized in the drug development industry, ensuring comprehensive drug-like coverage for your research.



• Affordable and Accessible

Our kit is a comprehensive package, including the library itself, PCR, NGS (Next-Generation Sequencing), and Hit Analysis. Our experts perform hit analysis to provide you with valuable insights and actionable data. All this comes without restrictive licensing limitations.



• Convenient and Reliable

Screening takes place in a single test tube. This solution seamlessly integrates into your research, using common laboratory equipment.



• Expandable Options

In addition to the essentials, we offer additional add-on services, including protein expression screening and chemical synthesis, providing an extra layer of convenience and expertise, tailored to your unique research needs.

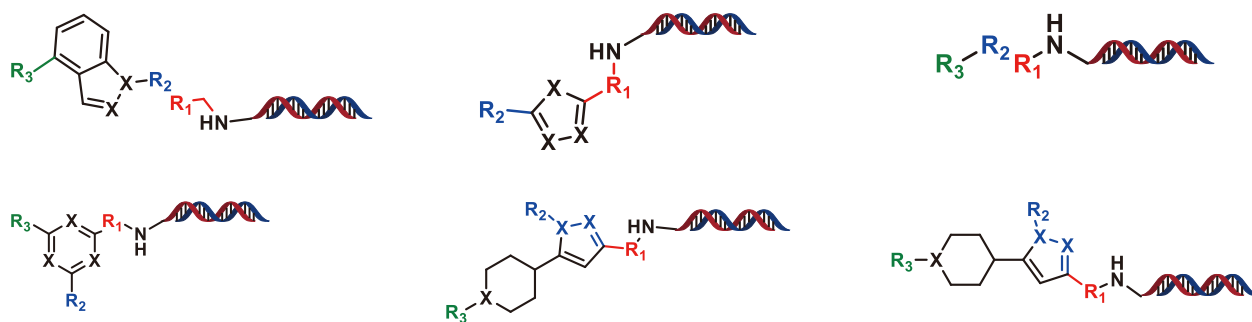


Figure 1. Examples of Library Chemical Structures

Screening can take place in a single test tube

The target protein is immobilized on magnetic beads, followed by incubation with the GenDECL under various incubation conditions. During these different incubation conditions, the ligands will specifically bind to the immobilized protein. Following successful binding, the captured ligands are readily quantified and identified through PCR amplification, using DNA barcoding. The PCR products are DNA sequenced, and the resulting data is prepared for analysis. Subsequently, the hit compound analysis is conducted, and the final report is provided to the scientist.

Workflow

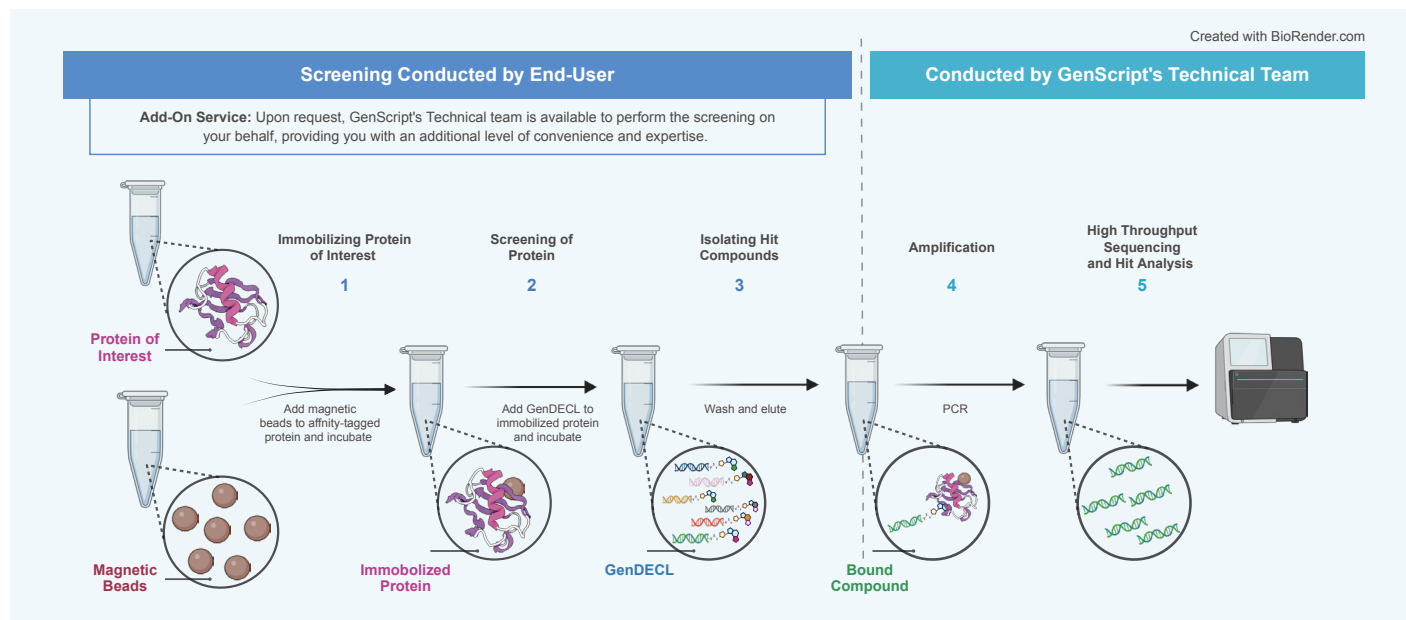


Figure 2. Workflow Overview

The screening workflow of GenDECL against the target protein of interest is outlined, utilizing common laboratory equipment. Steps 1 through 3 are executed by the end-user, while the subsequent steps are conducted by the GenScript technical team.

Optional Add-On Service: Upon request, GenScript's Technical team is available to handle the entire screening process (steps 1 through 3), offering an added level of convenience and expertise.