



 **DEL**ight **User Handbook**



Quotation available via: wuxi_delight@wuxiaptec.com



Introduction

Overview of the DELight kit

Included in the Kit

- Number of Libraries: 51
- Total compounds: 14 Billion
- Conditions available: 4

Affordable Initial Commitment

Included with No Additional Cost

- Sample processing at WuXi AppTec DEL platform
- NGS & Sequencing alignment
- Data summary report

Turn-around Time: **6 weeks**

Add-on Service

- Options to unlock data with structure
- Data analysis training
- Data analysis service from DEL professionals

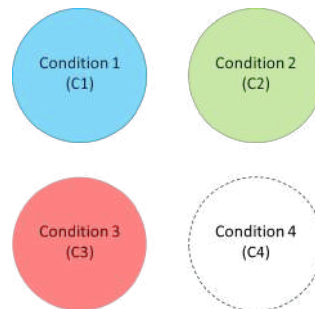
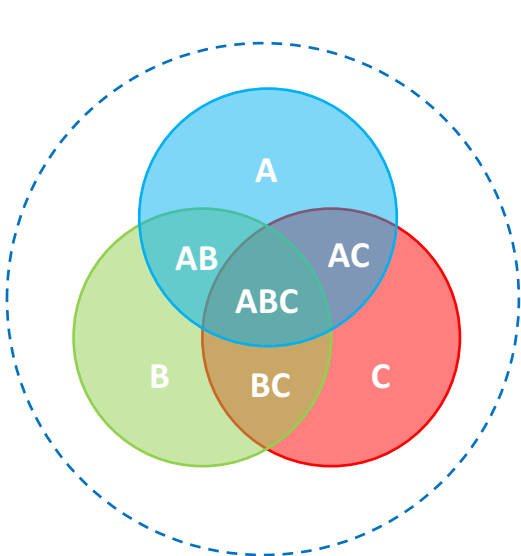
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Preparation

Material preparation before running the screening

<p style="text-align: center;">Equipment</p> <ul style="list-style-type: none"> • Tabletop centrifuge • Set of pipettors • Magnetic rack (optional) • Heating block / water bath • Set of electrophoresis cassette • Set of gel imaging system 	<p style="text-align: center;">Reagent</p> <ul style="list-style-type: none"> • ddH₂O (unopened preferred) • Protein with tag
<p style="text-align: center;">Experiment Design</p> <ul style="list-style-type: none"> • Target in mind • Venn Diagram 	

Condition	1	2	3	4
Details	Protein 1	Protein 1 + Inhibitor	Protein 2	No Target Control
Purpose of the Condition	Main target	To block a pocket	To look for specific information	To eliminate background noise



Note:

- For each kit, up to 3 different targets/samples (condition 1-3) could be utilized, condition 4 should be the NTC.
- Purchase of extra kits is recommended for additional targets/samples.
- Each kit will be processed independently.

Experiment

Two major parts:

Part 1: Beads capture test: make sure the protein could be immobilized



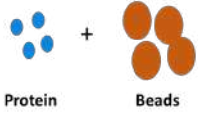
1. Incubate for 30min to 1hr; 2. Wash; 3. Elute
DEL selection buffer



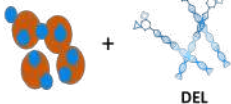
- Perform SDS-PAGE for each fraction
- Quantitate using band analysis
- >1µg of captured protein is required for a successful selection



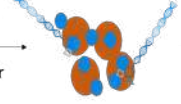
Part 2: Affinity selection with DELight pools



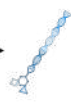
1. Incubate for 30min to 1hr
DEL selection buffer




2. Incubate for 1hr
DEL selection buffer




3. Heat elution at 95°C
DEL selection buffer




Kit Components



4 DELight pools: same library with different pool identifiers, important for *cross-contamination control*.



12 new tubes: for samples to be shipped back to WuXi AppTec



Buffer: specially formulated to suit most targets and to improve *signal-to-noise ratio*.

Note:

- Each kit is recommended to be used only once for an informative selection.
- Please follow the instruction and protocol strictly or otherwise no reliable result could be guaranteed.

After the selection

Handling of the samples to be shipped to WuXi AppTec

User: Pack the samples and ship them back to WuXi AppTec



1. Fill in the sample submission form

2. Pack the samples

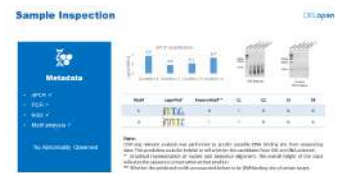
3. Ship with dry ice

Address: G warehouse #101, No.10 Building, #227 Meisheng Road, WaiGaoQiao Free Trade Zone, Shanghai 200131, China

WuXi AppTec DEL: Sample processing and report delivery

1. Sample Inspection

- qPCR ✓
- PCR ✓
- NGS ✓
- Motif analysis ✓



2. Data Summary Report

- Overall performance ✓
- Data overview for each profile ✓
- Performance comments and summary ✓

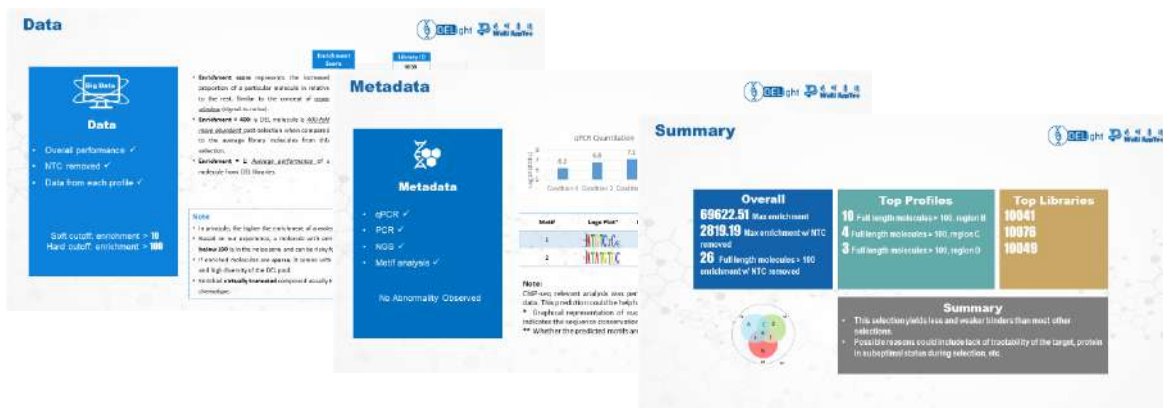


Report

Overview of the Analysis report

Report Content

- Illustration on how to read the plots will be provided.
- Metadata will be summarized and presented.
- Comments will be provided by professionals from WuXi AppTec DEL platform.



Next Step

Options to unlock data with structure

- One-time payment

Data analysis service from DEL professionals

- 1-on-1 customized data analysis service
- Support from the professionals
- Worry free

Data analysis training

- Learn from WuXi AppTec DEL professionals on how to analyze the data
- Complimentary for paid users
- Sign-up in advance (1 quota per kit)
- Data Warrior or Spotfire is required for data visualization

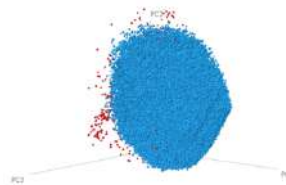
Details / Quotation available via: wuxi_delight@wuxiapptec.com

Interested in finding out more? Try the WuXi AppTec DEL Package Service

Access to the diverse WuXi AppTec DEL Library

WuXi AppTec DEL Selection Package

- **80+ billion** compounds
- For all users at a competitive price



Customized selection designed and performed by DEL professionals

Preselection QC

- Bead capture test showed good capturing capability
- Analytical SEC showed a clean monomer peak
- Tool compound binding test suggested good on-DNA tool compound affinity
- Thermal shift assay suggest good protein thermal profile

Affinity Selection

- Recovery rate of each elution fits historical profile
- PCR product with correct size and good purity
- %30 value suggested good data quality
- Tool compound enrichment fits biological interpretation

Data Analysis

- Overview of the performance of all libraries after selection
- Selected feature was analyzed in more detail

Off-DNA Confirmation

NyctanID	Target enrichment	NTC enrichment	Target copy	NTC copy	Hit
10002-0-52-0-0	2414.46	1.05	26433	5	10002
10002-7-52-0-0	704.68	1.33	63120	52	10002
10002-7-53-0-0	685.38	1.56	61750	61	10002

Activity confirmed with biochemical assay

On-DNA Hit Triaging

ASMS mini-screening (Full length, truncated, byproduct)

Special offers for challenging targets and objectives

Contact

- **Asia:** DEL_service
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- **North America:** Declan Ryan
Email: declan.ryan@wuxiappotec.com
- **Europe:** Dave Madge
Email: dave_madge@wuxiappotec.com

Challenging Objectives

Covalent DEL

1. Alternative Selection Method
2. Alternative Hit Confirmation Method

HR Deconvolution

Challenging Targets

Nucleic Acid Binders

Nucleic acid binding targets, such as transcription factors, DNA-binding factors, etc., are often considered not suitable for the selection due to their ability to bind DNA. As a series of drug targets, nucleic acid binding proteins are of significance in the drug discovery industry. Therefore, Wuxi AppTec, as a professional service provider, offers a modified protocol strategy to achieve the required impact of drug binding on DEL selection.

Membrane Targets

Membrane targets are challenging to select due to their hydrophobic nature and the difficulty of maintaining their native structure during the selection process. Wuxi AppTec provides a specialized protocol for the selection of membrane targets, ensuring high recovery and enrichment of the desired hits.

