Syno GS Gene Synthesis User Instruction

Thank you for choosing Synbio Technologies as your research partner. Before using our products, we kindly ask you to carefully read the following instructions to ensure the optimal experimental results.

Packaging Contents

The standard delivery of Synbio Technologies' Syno GS platform series products include the following:

Deliverables	Quantity	Storage Condition
2~5 μg lyophilized plasmid DNA	1 tube	–20℃
Bacterial stab	1 tube	4℃
Glycerol stock	1 tube	–20℃
Product instructions	1 copy	N/A
Digital experimental report	1 set	N/A

Note: Generally, either bacterial stab or glycerol stock (one of them) is delivered. The strain is typically T1, DH5a, etc., as indicated on the tube label. The plasmid quantity is 2~5 μg. If there are special requirements, we will deliver according to the contract.

Plasmid Usage Instructions

1.Quantification of Plasmid DNA

The quantity of plasmid is measured by absorbance at 260nm. Due to differences in instrument precision, there may be a margin of error within 10%.

2. Appearance of Plasmid DNA

The plasmid is vacuum-concentrated and dried, generally appearing as a white or transparent film, which cannot be accurately observed by the naked eye.

3. Usage of Plasmid DNA

The plasmid DNA is attached to the inner wall of the tube bottom after vacuum-concentration and drying. Due to potential vibration during transportation, centrifuge the plasmid sample tube at 12000rpm for 1 minute before use. Then, based on the indicated quantity on the label and the desired concentration, add the required amount of ddH2O or TE buffer solution (pH=8.0), vortex vigorously to dissolve it completely. The diluted plasmid can be directly used for experiments such as PCR, enzymatic digestion, or transformation. For example, if you need a plasmid storage concentration of 100ng/μl, the amount of water or TE (μl) to be added = μl number per tube × 10.

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4. Storage of Plasmid DNA

Plasmid DNA has good stability and can be stored long-term at -20℃ in dry powder form. Once dissolved, please store it at -20℃, and it is generally stable for use within 6 months. Repeated freezing-thawing cycles will reduce its shelf life. If multiple uses are required, it is recommended to perform multi-tube aliquots after the initial dissolution.

Bacterial Stab Usage Instructions

1. Appearance of Bacterial Stabs

Bacterial stabs are prepared in solid LB (1ml) medium in yellow inlay tubes. Visible to the naked eye, white irregular filamentous substances indicate the presence of a grown bacterial stab.

2. Usage of Bacterial Stabs

Under aseptic conditions, use an inoculation needle to pick up the white filamentous bacteria and inoculate into 2-4ml of LB liquid medium. After adding the corresponding antibiotics, the activated strains are obtained by cultivating at 37 ℃ on a constant-temperature shaking table for 12-24 hours. Activated strains can be directly used for sub-culturing and expansion. It is recommended to streak or dilute the activated strains, pick clones for plasmid identification, and then use them for further experiments or expansion cultures.

3. Storage of Bacterial Stabs

Store bacterial stabs at 4 ℃, where they can typically be stored for at least one month under normal circumstances.

Glycerol Stock Usage Instructions

1. Appearance of Glycerol Stocks

Glycerol stocks are stored in yellow inlay tubes. Fresh glycerol stocks appear as viscous and turbid bacterial liquid. Following prolonged storage, glycerol strains aggregate at the bottom of the tube, while the upper layer contains clear storage liquid.

2. Usage of Glycerol Stocks

Gently mix the stored glycerol stock and, under aseptic conditions, use a pipette to draw 10-100 μl of glycerol stock and inoculate it into 2-4ml of LB liquid medium. After adding the corresponding antibiotics, the activated strains are obtained by cultivating at 37 ℃ on a constant-temperature shaking table for 12-24 hours. Activated strains can be directly used for sub-culturing and expansion. It is recommended to

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streak or dilute the activated strains, pick clones for plasmid identification, and then use them for further experiments or expansion cultures.

3. Storage of Glycerol Stocks

Store the glycerol stocks at –20℃, where they can typically be stored for at least three months under normal circumstances.

Special Notice

If you have any questions about our products, please contact us promptly and provide relevant data and images. If there are suspected quality issues, we will inspect the entire production and transportation process to ensure your consumer rights.

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