Glycogen (for nucleic acid precipitation, 20 mg/mL)

G1518312

Storage: -20℃.
Shipping: Shipped with ice packs.

Introduction:

This product's main component is imported high-purity glycogen, which is free from DNase and RNase. Glycogen is an excellent nucleic acid coprecipitant (Acryl Carrier). Compared to tRNA or sonicated DNA, it can more efficiently precipitate trace amounts of DNA or RNA. Since glycogen itself contains no nucleic acid components, nucleic acid samples obtained using it as a coprecipitant are more suitable for subsequent experiments with high purity requirements, such as PCR, RT-PCR, and restriction enzyme digestion. In contrast, using tRNA or sonicated DNA as coprecipitants may sometimes interfere with these enzymatic reactions.

Product Features:

1. High Efficiency Precipitation: Typically, 1 μL of this product (20 mg/mL) is sufficient to precipitate pg-levels of DNA or RNA from a 1 mL solution system.
2. Nucleic Acid-Free Contamination: Glycogen contains no DNA or RNA, thus avoiding interference from exogenous nucleic acids in downstream experiments.
3. Strong Compatibility:

- 1 μg/mL Glycogen does not inhibit the activity of terminal deoxynucleotidyl transferase (TdT).
- Glycogen at concentrations below 2 mg/mL has almost no effect on reverse transcriptase activity.
- 20 μg/mL Glycogen does not inhibit T4 RNA ligase activity.
- Ligation products precipitated with Glycogen show almost no interference with subsequent bacterial transformation.

Applications:

Suitable for use as an auxiliary reagent in ethanol/isopropanol precipitation of DNA or RNA, particularly for the recovery of trace nucleic acid samples. This product is intended for research use only and is not suitable for clinical diagnostic or other purposes.

Protocol (For Reference Only):

1. Add 1 μL of Glycogen (20 mg/mL) to the DNA or RNA sample to be precipitated and mix well. For specific experiments, the amount of Glycogen used can be adjusted according to literature or specific protocols, generally not exceeding 4 μL.
2. Precipitate the DNA or RNA using ethanol or other methods as required by the experiment.

3. Add the precipitation reagent (e.g., ethanol), mix well, and centrifuge at approximately 12,000 g for 10 minutes to obtain a coprecipitate of nucleic acid and Glycogen. If maximum precipitation recovery is required, after adding the precipitation reagent and mixing, the sample can be stored at -20°C or -80°C for several hours or overnight before centrifugation.

Precautions:

1. Avoid repeated freeze-thaw cycles, as this may reduce the efficiency of Glycogen.
2. For your safety and health, please wear laboratory clothing and disposable gloves during operation.
3. Please use the reagent promptly after opening to prevent affecting subsequent experimental results.