

Glycogen Solution, 20mg/ml

<u>Code</u>	<u>Description</u>	<u>Size</u>
N632-2x0.5ml	Glycogen Solution, 20mg/ml <i>Includes:</i> Each tube contains 0.5 ml of 20mg/ml glycogen solution	2 x 0.5 mls

General Information:

AMRESKO's molecular biology grade glycogen is an inert carrier used to increase the recovery of nucleic acids by alcohol precipitation. Glycogen is insoluble in ethanol or isopropanol and forms a precipitate that traps the nucleic acids in solution, forming a visible pellet during centrifugation. As an inert co-precipitant, glycogen allows for efficient recovery of DNA or RNA from dilute solutions, as well as oligonucleotides in solution.

Glycogen is a highly purified branched chain carbohydrate that enhances nucleic acid precipitation but does not add exogenous nucleic acids to the sample as do other coprecipitants such as yeast RNA or tRNA. AMRESKO's Glycogen Solution, 20mg/ml, is free of host DNA and is functionally tested for DNA precipitation. It will not affect the $OD_{A260/280}$ ratio or determination of DNA/RNA concentration. At concentrations less than $\sim 8 \mu\text{g}/\mu\text{l}$, glycogen will not interfere with downstream applications including most enzymatic reactions or electrophoresis.

Storage/Stability:

Glycogen Solution, 20mg/ml is stable for 1 year when stored at 2-8 °C.

Application Disclaimer

*For Research Use Only.
Not for Therapeutic or Diagnostic Use.*



Procedure:**Nucleic Acid precipitation from dilute solutions:**

For oligonucleotide precipitation, a 1 µg/µl final glycogen concentration is recommended.

For nucleic acid precipitation in dilute solutions, a final glycogen concentration of 0.05 – 1 µg/µl is recommended.

When working with RNA, care should be taken to wear gloves and use RNase-free tubes, tips and solutions.

1. Add 1/10 volume of 3 M sodium acetate (E498) to the DNA in solution.

↪ Note: 1/10th volume of 2M sodium chloride or 5M ammonium acetate may be substituted for 3M sodium acetate.

2. Add glycogen to a final concentration of 0.05 – 1 µg/µl. (up to 1 µl of 20mg/ml glycogen solution per 20 µl of solution).

3. Add 1 volume of isopropanol (E498) to the solution. Mix gently.

↪ Note: 2.5 volumes of ethanol may be substituted for 1 volume of isopropanol.

4. Incubate at -20°C for 1 hour (or 30 minutes at -70°C.)

↪ Note: Longer incubation times at lower temperatures result in better recovery of nuclei acids.

5. Centrifuge for 10-15 minutes at 10,000 rpm. Discard or aspirate the supernatant, being careful not to dislodge the pellet.

6. Rinse the pellet with cold 70% ethanol. Air dry the pellet.

↪ Note: Be careful not to over-dry the pellet, which will make resuspension more difficult.

7. Dissolve the DNA pellet in nuclease-free water or TE buffer. For RNA, DEPC-treated water (E476) or RNA Storage Buffer (N633) is recommended.

Related Products

<u>Code</u>	<u>Product</u>
E112-100ml	TE Buffer, pH 8.0, 1X Sterile Solution
N634-12x1ml	TE Buffer, pH 7.0, Sterile 1X (for RNA)
N633-12x1ml	RiboReserve™, RNA Storage Solution
E476-100ml	Water, Nuclease-Free, Sterile (DEPC-treated)
E498-100ml	Sodium Acetate, 3M Sterile Solution
0918-1L	Isopropanol (Isopropyl Alcohol)

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