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Product Information

Glycogen from *Mytilus edulis* (Blue mussel)
for molecular biology

Catalog Number **G1767**
Storage Temperature –20 °C

Synonyms: animal starch, liver starch

Product Description

Glycogen is generally preferred over tRNA, yeast RNA or sonicated DNA as a carrier, because it is less likely to interfere with downstream applications. Note oligonucleotides as short as 20 base pairs can be recovered using linear polyacrylamide (LPA) in a DNA precipitation. Oligonucleotides as short as 8 base pairs can be recovered using glycogen.[1]

This Glycogen product for molecular biology is a prepared solution of glycogen from mussel in sterile redistilled water at a concentration of ~20 mg/ml. This preparation is purified to remove all detectable traces of nickases, RNAses and DNAses. Therefore, this glycogen is a suitable carrier or co-precipitant in RNA and DNA purification.[2,3] Picogram amounts of RNA or DNA can be precipitated from a volume of 0.5 ml by including 20 µg of glycogen (1 µl of solution).

DNase, RNase and nickase: None detected.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

This solution may be stored at –20 °C for up to one year.

Procedure

1. Add 1 µl of glycogen solution (Catalog Number G1767, corresponding to 20 µg of glycogen) to RNA or DNA in a volume of up to 500 µl.
2. Add 0.1 volume of 3 M sodium acetate, pH 5.2 (Catalog Number S7899).
3. Precipitate the DNA or RNA by adding 2–3 volumes ethanol (Catalog Number E7023).
4. Mix thoroughly and incubate at –20 °C for at least 1 hour.
   Note: Quantitative recovery may require incubation at –20 °C for several hours or overnight. Nucleic acids may be stored indefinitely and safely as ethanol precipitates.
5. Centrifuge for 15–20 minutes at maximum speed in a microcentrifuge (14,000–16,000 × *g*). A visible pellet will be formed.
6. Carefully remove the supernatant.
7. Wash the pellet with 70% ethanol. Centrifuge for 2–5 minutes and carefully remove the supernatant.
8. Allow the pellet to air dry for 15–30 minutes.
9. Resuspend the RNA or DNA pellet in 1× TE buffer (Catalog Number T9285) or molecular biology reagent water (Catalog Number W4502).

References

1. Hengen, P.N., Trends Biochem. Sci. (TiBS), **21**, 224-225 (1996).
2. Tracy, S., Prep. Biochem., **11**, 251-268 (1981).
3. Helms, C. et al., DNA, **4**, 39-49 (1985).

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