Glycogen

From mussels, MB Grade

**Cat. No. 10 901 393 001**
20 mg (1 ml)

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### 1. What this Product Does

#### Contents

<table>
<thead>
<tr>
<th>Vial</th>
<th>Content</th>
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<tr>
<td>Glycogen, 20 mg/ml</td>
<td>one vial of 20 mg in double-distilled water.</td>
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</table>

### Storage and Stability

The unopened vial is stable at –15 to –25°C through the control date printed on the label.

### 2. How To Use this Product

#### Application

This preparation is used as a carrier for the precipitation of nucleic acids (DNA or RNA) (1, 2). As an inert material, it may replace tRNA or sonicated DNA.

20 µg Glycogen (1 µl solution) precipitates pg-amounts of DNA or RNA from a volume of 1 ml.

In a typical experiment, 5 pg [3H]-labeled calf thymus DNA was dissolved in 500 µl 10 mM Tris–HCl, pH 8.0; 1 mM EDTA; 0.4 M LiCl. 1 µl Glycogen solution (20 µg glycogen) as carrier was added and then precipitated with 1.2 ml ethanol at –15 to –25°C and stored for 3 h at –15 to –25°C. After centrifugation (10 min at 12,000 × g) the total radioactivity was found in the precipitate. Without addition of Glycogen, no precipitation of DNA occurred.

### 3. Additional Information on this Product

#### Product Characteristics

This Glycogen is free from nucleic acids, proteases, DNases, and RNases, as tested using the quality control methods described in this Instructions for Use. It does not interfere with further treatment of the precipitated nucleic acids with nucleases or modifying enzymes.

#### Quality Control

Lot-specific certificates of analysis are available at [Online Technical Support Site](#).

**Incubation buffer**

5x conc.: 50 mM Tris–HCl; 10 mM MgCl₂; 5 mM dithioerythritol; pH 7.5 (at +37°C) was used for the determination of contaminating activities.

**Absence of endonucleases**

1. 1 µg λDNA is incubated with Glycogen in 25 µl incubation buffer for 4 h at +37°C. For up to 200 µg of Glycogen, no degradation of λDNA is detectable.

2. 1 µg Eco RI/Hind III-fragments of λDNA is incubated with Glycogen in 25 µl incubation buffer for 4 h at +37°C. For up to 200 µg of Glycogen, no alteration of the banding pattern is shown.

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**Absence of nicking activity**

1 µg pBR 322 DNA is incubated with Glycogen in 25 µl incubation buffer for 4 h at +37°C. For up to 200 µg of Glycogen, no relaxing of supercoiled structure is detectable.

**Absence of exonucleases**

3 nM of sonicated [³H]DNA (approx. 100,000 cpm/µg) from calf thymus are incubated with Glycogen in 100 µl incubation buffer for 4 h at +37°C. For up to 200 µg of Glycogen, no release of radioactivity is detectable.

**Absence of RNases**

5 µg MS 2 RNA is incubated with Glycogen in 50 µl incubation buffer for 4 h at +37°C. For up to 200 µg of Glycogen, no degradation of MS2 RNA is detectable.

**Absence of nucleic acids**

200 µg Glycogen is loaded on a 1% agarose gel. Electrophoresis is performed at 120 V for 1.5 h. Analysis of the ethidium bromide-stained gel under UV light reveals no bands.

**Absence of proteases**

200 µg Glycogen is incubated with 80 mg Azocoll in 50 mM phosphate buffer pH 8. After 2 h incubation at +37°C, no red azo color is released (measured at 520 nm).

### References


### Changes to previous version

- Editorial changes

### Trademarks

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### Disclaimer of License

For patent license limitations for individual products please refer to: List of biochemical reagent products.

### Contact and Support

To ask questions, solve problems, suggest enhancements and report new applications, please visit our [Online Technical Support Site](#).