

## GST Bulk Kit

### Product Information

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**Cat#No#** GST-392C

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### Product Overview

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GST bulk kit is designed for small-scale manual purification of GST-tagged proteins using either column chromatography or batch method. Facilitates optimization studies of expression, solubility conditions and purification parameters of GST-tagged proteins:

For rapid purification of GST-tagged proteins using gravity flow columns or using batch purification with high specificity.

Preserves protein antigenicity and function.

Yields up to 50 mg of pure protein.

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### Description

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GST Bulk Kit contains a 10 ml bulk pack of Glutathione Sepharose 4B medium, five gravity-flow columns, IPTG, and GST Buffer Kit. GST-tagged proteins can be recovered under mild elution conditions (10 mM glutathione), which preserves functionality of the proteins. The binding capacity of Glutathione Sepharose 4B, which can be greater than 10 mg protein/ml medium, varies with the nature of the tagged protein and the exact binding conditions used.

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### Medium Preparation

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Glutathione Sepharose 4B

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### Matrix

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Polypropylene barrel, polyethylene frits

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### Particle Size

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45–165  $\mu$ m

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### Average particle size

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90  $\mu$ m

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### Ligand

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glutathione and 10-carbon linker arm

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## GST Bulk Kit

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### Ligand density

7–15  $\mu\text{mol}$  glutathione/mL medium

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### Dynamic binding capacity

Approx. 10 mg recombinant glutathione S-transferase ( $M_r$  26 000)/mL medium (protein dependent).

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### Chemical stability

No significant loss of the capacity is detected when Glutathione Sepharose 4B is exposed to 0.1 M citrate (pH 4.0), 0.1 M NaOH, 70% ethanol or 6 M guanidine hydrochloride<sup>2</sup> for 2 h at room temperature. No significant loss of binding capacity is observed after exposure to 1% SDS for 14 days.

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### Chemical compatibility

All commonly used aqueous buffers.

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### CIP stability

4 to 13

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### Temperature stability

4–30°C

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### Storage

20 - 25°C

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### Binding buffer

10 mM PBS pH 7.4 (dilute stock solution 10 times which gives 140 M NaCl, 0.027 mM KCl, 10 mM Na<sub>2</sub>HPO<sub>4</sub>, 0.018 mM KH<sub>2</sub>PO<sub>4</sub>, pH 7.4).

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### Elution buffer

50 mM Tris-HCl (pH 8.0), 10 mM glutathione (Addition of the 50 mL of dilution buffer to bottle containing glutathione).

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### Pack size

1 kit

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### Column volume

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## GST Bulk Kit

5 mL

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### Kit contents

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50 mL 10 × PBS stock solution pH 7.4 (1.4 M NaCl, 27 mM KCl, 101 mM Na<sub>2</sub>HPO<sub>4</sub>, 18 mM KH<sub>2</sub>PO<sub>4</sub>, pH 7.4).

50 mL dilution buffer: 50 mM Tris-HCl (pH 8.0).

Reduced Glutathione 0.154 g.

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