

# ProteinIso® GST Resin

Cat. No. DP201

Storage: at 2-8°C (20% ethanol) for two years

## Description

*ProteinIso*® GST Resin allows rapid affinity purification of GST-tagged proteins. GST fusion proteins expressed in *E.coli*, insect cells and mammalian cells can be purified with *ProteinIso*® GST Resin. The GST Resin is only suitable for soluble protein purification.

## Resin Specifications

Resin	Cross-linked 4% agarose
Ligand	glutathione
Shape	sphere
Pore size	90 µm
Support density	8 mg GSH/ml wet gel
Binding capacity	10~12 mg/ml wet gel (MW 42 kDa) 3.5 mg/ml wet gel (rat liver)
Maximum flow rate (25°C)	450 cm/h
Recommended flow rate	<150 cm/h
Highest resistance of atmospheric pressure	0.3 Mpa
pH stability	3~10

## Procedures

### 1. Prepare GST purification column

- (1) Thoroughly resuspend the GST resin to achieve a homogeneous suspension of the resin in the 20% ethanol storage buffer.
- (2) Immediately transfer the resin into a purification column. Ensure that the bottom of the column is plugged with a stopper.  
Close the valve of the column. Allow the resin to settle.

### (3) Equilibrate the column with 5~10 bed volume of equilibration buffer.

### 2. Prepare samples

To avoid blocking column, samples should be centrifuged and filtrated with 0.45 µm filter before loading.

### 3. Load samples and wash

Load samples and wash with 5~10 bed volume of equilibration buffer and collect the flow-through in one tube.

### 4. Elute

Elute target protein with elution buffer.

### 5. Regeneration of GST resin

- (1) Wash the column/resin with 2 bed volume of 6 M GuHCl, 0.2 M acetic acid and then 5 bed volume of deionized water or PBS buffer.

Or

- (2) 3-4 bed volume of 70% ethanol or 30% isopropanol and then 3-5 bed volume of deionized water.

Or

- (3) 2 bed volume of 10-100 mM NaOH and then 10 bed volume of deionized water.

- (4) Store column/resin in 20% ethanol.



#### Notes

- Samples should be centrifuged and filtrated with 0.45  $\mu\text{m}$  filter before loading.
- To avoid cross-contamination, do not use the same medium to purify different proteins.
- Equilibration Buffer  
140 mM NaCl, 2.7 mM KCl, 10 mM  $\text{Na}_2\text{HPO}_4$ , 1.8 mM  $\text{KH}_2\text{PO}_4$ , pH 7.3
- Elution Buffer  
50 mM Tris-HCl pH 8.0, 10 mM reduced glutathione.

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