

# Tagged package, GST – Purification of GST-tagged proteins



**With our prepacked columns and verified protocols using ÄKTA™ chromatography systems, you can purify almost any GST-tagged protein with ease. All of which means you can focus your efforts on what matters: your research, and changing tomorrow today.**

## Introduction

Purification of GST-tagged proteins can be performed under very mild conditions, which preserves the function and antigenicity of the target protein. The purification method is based on the high affinity of GST for glutathione. When applied to the affinity medium, GST-tagged proteins bind to the glutathione ligand, and impurities are removed by washing with binding buffer. Tagged proteins are then eluted from the chromatography medium under mild, non-denaturing conditions that preserve both protein structure and function.

### Content of Tagged package, GST

- GSTrap™ 4B (1 × 1 ml)
- HiTrap™ Desalting (1 × 5 ml)

## How to use the kit

The following workflow describes the steps involved in purifying GST-tagged proteins.

- 1 Sample preparation** First, you need to prepare your sample for the affinity purification step. For optimal growth, induction and cell lysis conditions for your GST-tagged clones, please refer to the *GST Gene Fusion System Handbook* (code number 18-1157-58).
- 2 Affinity purification** Your kit includes a GSTrap 4B column prepacked with Glutathione Sepharose™ 4B medium. The column has a high binding capacity for GST-tagged proteins, giving you higher yields.
- 3 Buffer exchange** The kit also includes a HiTrap Desalting column to provide rapid buffer exchange and prepare your sample for subsequent applications.
- 4 Analysis** Depending on your purpose, several analytical methods can be used. SDS-PAGE for purity analysis, Western blot for detection of target molecules, X-ray crystallography for structure determination and mass spectrometry for identification.



## About the columns

To ensure that the columns do not interact with biomolecules, we produce them with biocompatible polypropylene. HiTrap columns can be used singly or connected in a series for easy scale up, together with a syringe, peristaltic pump, or chromatography system. HiTrap columns are well suited for use with ÄKTA start, an easy-to-learn and easy-to-use system that eliminates the hassles of manual protein purification.

*Enjoy your protein purification!*

## Ordering information

Product	Quantity	Code number
Tagged package, GST	1	29-0588-04
GSTrap 4B	1 × 1 ml	29-0486-09
HiTrap Desalting	1 × 5 ml	29-0486-84

Detailed information on how to use the columns and purification protocols can be found in the instructions for the respective products: GSTrap 4B (code number 28-4048-13) and HiTrap Desalting (code number 71-7154-00). Download the instructions at [www.cytiva.com/purifyGST](http://www.cytiva.com/purifyGST) under the related documents tab. You will also find our handbook *Recombinant Protein Purification, Principles and Methods* (code number 18-1142-75).

[cytiva.com/purify-GST](http://cytiva.com/purify-GST)

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