

Untagged package – Purification of most proteins, untagged and native



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

Introduction

Untagged recombinant and native proteins usually require a multistep purification protocol to obtain sufficient purity. These proteins may come from natural sources or have been over-expressed without a tag because the presence of a tag would interfere with the use of the protein.



Content of untagged package

- HiTrap™ Q HP (1 × 1 ml)
- HiTrap™ SP HP (1 × 1 ml)
- HiPrep™ 16/60 Sephacryl™ S-200 HR

How to use the kit

The following workflow describes the steps involved in purifying untagged proteins.

- 1 Sample preparation** First, you need to prepare your sample for the capture step. For optimal growth, induction and cell lysis conditions for your untagged or native clones please refer to established protocols. Note that it is important to have the same conditions (salt concentration, pH, etc.) in the sample as in the binding buffer for the capture step.
- 2 Capture** The capture step is intended to isolate, concentrate and stabilize your target protein. HiTrap Q HP (anion exchanger) or HiTrap SP HP (cation exchanger) is used for this.
- 3 Intermediate purification (optional)** The intermediate purification step can be added for removal of potential bulk impurities such as other proteins, endotoxins, and viruses. A desalting step or dilution of your sample by 10 to 20 times is needed. Use HiTrap Q HP if it has not been used in the capture step (or HiTrap SP HP if it has not been used in the capture step).
- 4 Polishing** To achieve final purity, the HiPrep 16/60 Sephacryl S-200 will help you remove any remaining trace impurities or closely related substances.
- 5 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
Untagged package	1	29-0588-07
HiTrap Q HP	1 × 1 ml	29-0513-25
HiTrap SP HP	1 × 1 ml	29-0513-24
HiPrep 16/60 Sephacryl S-200 HR	1	17-1166-01

Detailed information on how to use the columns and purification protocols can be found in the instructions for the respective products: HiTrap Q HP and HiTrap SP HP (code number 71-7149-00) and HiPrep 16/60 Sephacryl S-200 HR (code number 28-4026-53). Download the instructions at www.cytiva.com/purify-untagged under the related documents tab. Here you will also find our handbook *Recombinant Protein Purification, Principles and Methods* (code number 18-1142-75).

cytiva.com/purify-untagged

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CY14745-24Nov20-FL

