



Affi-Prep[®] Protein A Analytical Cartridge

Catalog Number 125-0460

Introduction

The Affi-Prep protein A analytical cartridge is intended for use with Bio-Rad's Standard Cartridge Holder (catalog number 125-0131) in an HPLC or medium pressure system. All specifications have been determined using the Affi-Prep protein A MAPS II buffers (catalog number 153-6164), according to the instructions provided.

Protocol

- Equilibrate the protein A cartridge with Affi-Prep MAPS II binding buffer for 15 minutes at 0.5 ml/minute (~15 column volumes).
- Dilute the immunoglobulin-containing sample 1:2 with binding buffer (i.e., one volume sample plus two volumes buffer), filter (0.22 and 0.45 mm membrane), and inject a sample containing up to 2.5 mg of immunoglobulin onto the cartridge. Continue the flow at 0.5 ml/minute.

Note: For many murine immunoglobulins, the capacity is as high as 10 mg antibody/ml protein A, or 5 mg antibody/cartridge.

- The chromatographic trace should return to baseline within 5 to 10 minutes, indicating removal of unbound contaminating proteins.
- Change to Affi-Prep MAPS II elution buffer and return flow to 0.5 ml/minute. The immunoglobulin will elute within 5 minutes of the buffer change.

Note: For many samples, a less acidic release buffer is sufficient. If a particular immunoglobulin is acid sensitive, alternative elution buffers should be tested.

- The use of Affi-Gel MAPS II regeneration buffer is not recommended for Affi-Prep products, due to the composition of the support matrix.
- The cartridge should be stored in a mild neutral buffer. We recommend 0.05 M sodium phosphate, pH 7.5, containing 0.02-0.05% sodium azide (NaN₃).

Specifications

Packing material	Highly purified protein A covalently coupled to a unique polymer matrix
Cartridge dimensions	30 x 4.6 mm; 0.5 ml bed volume

Antibody loading capacity	5 mg maximum; 2.5 mg recommended for highest purity
Flow rate	2 ml/minute maximum; 0.5 ml/minute recommended
Pressure limit	1,000 psi maximum
Shipping buffer	0.05 M sodium phosphate, pH 7.5, containing 0.05% NaN ₃

Ordering Information

Catalog Number	Product Description
125-0460	Affi-Prep Protein A MAPS Analytical Cartridge, 30 x 4.6 mm
125-0131	Standard Cartridge Holder, for 30 x 4.6 mm cartridges
125-0461	Affi-Prep Protein A MAPS Preparative Cartridge, 15 x 25 mm
155-0130	MAPS Preparative Cartridge Holder, for 15 x 25 mm cartridges
156-0005	Affi-Prep Protein A Support, 25 ml
153-6164	Affi-Prep Protein A MAPS II Buffers (contains 1.5 L binding buffer and 1.1 L elution buffer)
153-6165	Affi-Prep Protein A MAPS II Kit (contains 153-6164 MAPS II buffers, 125-0460 Affi-Prep protein A MAPS analytical cartridge, and 125-0131 Standard Cartridge Holder)
153-6161	Affi-Prep Protein A MAPS II Binding Buffer, 5 liters (contains enough solids to make 5 liters of binding buffer)
153-6162	Affi-Prep Protein A MAPS II Elution Buffer, 5 liters (contains enough solids to make 5 liters of elution buffer)
155-0005	Affi-Prep Guard Cartridge, 15 x 25 mm, for all 25 mm ID columns and cartridges