BIO-RAD

Affi-Prep® Protein A MAPS® Preparative Cartridge

Catalog Number 125-0461

Introduction

The Affi-Prep protein A MAPS preparative cartridge is intended for use with the MAPS Preparative Cartridge Holder (catalog number 155-0130) in an HPLC or medium pressure system. All specifications have been determined using the Affi-Prep protein A MAPS II buffers (catalog number 153-6154), according to the instructions provided.

Protocol

1. Equilibrate the protein A preparative cartridge with Affi-Prep MAPS II binding buffer for a minimum of 12–24 minutes at 5–10 ml/min (~15 column volumes).
2. Dilute the immunoglobulin containing sample 1:2 with binding buffer (*i.e.*, one volume sample plus two volume buffer), filter through 0.22 µm or 0.45 µm membrane, and inject a sample containing up to 35 mg of immunoglobulin onto the preparative cartridge. Continue flow at 5–10 ml/min.

   Note: For many murine immunoglobulins the capacity is as high as 10 mg antibody/ml protein A, or 75 mg antibody/preparative cartridge.
3. The chromatographic trace should return to baseline within 5 to 10 min, indicating removal of unbound contaminating proteins.
4. Change to Affi-Prep MAPS II elution buffer and return flow to 5–10 min. The immunoglobulin will elute within 5–10 min of the buffer change.
5. The use of Affi-Gel® protein A MAPS II regeneration buffer is not recommended for Affi-Prep products.
6. The cartridge can be effectively regenerated with 40 ml of 0.1 N NaOH. For sanitation purposes, use 40 ml of N NaOH.
7. 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 (NaN_3).

Specifications

Packing material	Highly purified protein A covalently coupled to a unique polymer matrix
Cartridge dimensions	15 x 25 mm; ~7.5 ml bed volume
Antibody loading capacity	75 mg maximum; 35 mg recommended for highest purity
Flow rate	30 ml/min maximum; 5–10 ml/min recommended
Pressure limit	1,000 psi maximum
Shipping buffer	0.05 M sodium phosphate, pH 7.5, containing 0.05% NaN_3

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