
Avidin-Agarose

Product Description

Name:	Avidin immobilized onto an agarose gel avidine immobilisée sur un gel d'agarose
Part Number :	UP340909, 2ml UP34090A, 5ml UP34090B, 10ml
Matrix :	Sepharose® CL-4B
Ligand:	Approx. 5 mg immobilized avidin per ml of wet gel.
Binding capacity:	Approx. 50 µg of d-biotin per ml of wet gel.
Conditioning:	Suspension in PBS pH 7.4; NaN ₃ 0.02 % (w/v)
Storage:	+4°C (L)

Technical Information

Uptima offers this avidin-agarose reagent for various R&D applications in vitro use:
- immobilization of biotinylated peptides, antibodies... notably for the preparation of affinity gels
- removing of biotin and biotinylated molecules from samples

Avidin, a 67 kDa tetrameric protein purified from eggs, exhibits a very strong binding with biotin, a vitamin of 244 kDa. The incomparable affinity, the highest known amongst biomolecules ($K_a=10^{-15} \text{ M}^{-1} \text{ L}^{-1}$), is favourably put to good account for capture and immobilization purposes.

- Avidin is linked covalently to 4% crosslinked agarose, to ensure high biotin capacity but low unspecific binding and low bleaching of avidin. The coupling of avidin ensures very good stability, and very low bleaching. The gel can thus be used 10 to 20 times without a noticeable decrease of the binding capacity. When properly stored, the gel is stable at least 1 year.
- The capacity of binding is 50µg of biotin per ml of wet gel. This should be used to evaluate the quantity of sample to be applied on the gel. For antibodies or peptides, the ratio of biotin can be approximated from the conditions of biotinylation with NHS- and Maleimide-Biotin derivatives, or by quantitation of biotin (ask Uptima).
- The dissociation of avidin from biotinylated molecules requires very harsh conditions (6M Guanidine for example). Under classical conditions, the immobilized molecule remain in place so it can be used for the purification of its ligands: complex samples are incubated with an immobilized probe, then ligands bond onto the column can be eluted under alkaline, acidic, or chaotropic conditions.
- Avidin gel can be used in batch or in packed columns. Batch is convenient for analytical separations ('immunoprecipitation') from different and complex samples, while columns are preferred for repeated uses.

rev. B05V

For any question,
contact your local distributor

Uptima,
powered by



213 Avenue J.F. Kennedy - BP 1140
03103 Montluçon Cedex - France
Tél. 04 70 03 88 55 - Fax 04 70 03 82 60

uptima@interchim.com Hotline : 33(0)4 70 03 76 06