



AGAROSE BEAD
TECHNOLOGIES

Your choice beads

Plain & Crosslinked Agarose Beads

Chelating Agarose Beads

Glyoxal Agarose Beads

Aminoethyl Agarose Beads





Agarose Bead Technologies is dedicated to the research and development of biotechnology products derived from agar and agarose. The company offers a wide range of activated agarose beads for Affinity Chromatography and Immobilization processes, as well as a variety of non activated agarose beads for size exclusion chromatography.

ABT has complete quality control over its entire raw material supply chain, from the harvesting and collecting of seaweed, of which it has profound knowledge and years of experience, to the manufacturing and application of the final product. Thus, ABT is able to select only the best algae available for use in the manufacturing of its choice agar, from which its premium grade agarose is made. Only then can the finest beads be produced, utilizing this strictly unique selection process throughout.

Besides producing superior agarose beads, the company's time proven system of quality assurance via the control of its entire supply chain has two other key customer benefits. First, it leads to an overall reduction in costs, allowing ABT to be more price competitive in such a high end market. And secondly, it allows ABT to have a very high orders fill rate, as it always has adequate raw materials in stock.

ABT's mission is to focus its efforts in producing highly specialized products such as agarose beads having the widest range within its manufacturing lines, thus positioning itself as a specialist in this growing market segment. The company continues to expand its development of an international partner network in order to become a reliable provider of these high end products around the world.





SIZE EXCLUSION CHROMATOGRAPHY AGAROSE BEADS



Agarose is a very inert polysaccharide which forms hydrophilic and high gel strength gels at low concentrations.

Agarose Beads are microspheres of agarose gels with different particle diameters and concentrations. Small spherical particles of agarose act as a porous gel to filter or separate a mixture of molecules according to their individual sizes. Due to its chemical structure (easy to activate), the agarose beads may be prepared to bind biomolecules in a reversible or irreversible manner.

Plain and crosslinked agarose beads are used in Gel Filtration Chromatography (or Molecular Exclusion Chromatography) as well as for activating beads for biomolecule purification or immobilization.

Plain and cross-linked agarose beads can also be used for activating processes, generating active groups inside its pores capable of reversible or irreversible biomolecule bonds. Due to the bead's large internal surface and to its composition (inert polysaccharide), agarose is an ideal medium for the preparation of activated beads.

ABT offers a wide range of plain and crosslinked agarose beads with different agarose concentrations (2, 4, 6, 8% & 10%) in different particle size distributions.





AFFINITY CHROMATOGRAPHY AGAROSE BEADS



ABT activated agarose beads are currently divided in 2 lines of products: his-tag purification and antibody purification.

HIS-TAG PURIFICATION

Chelating beads are used for purifying histidine-tagged proteins by Affinity Chromatography based on the interaction between those proteins and the transition metal cations.

BENEFITS

- Excellent yield.
- Consistent performance.
- Simple protein binding protocols.
- Competitive prices.
- All products in ready to use version.

ABT is the only company to offer a solution for every His-tag protein:

1. The widest selection of metal chelating beads (4 different metals).
2. Two different degrees of loading (high and low density).
3. Three different formats to optimize the recovery of the specific biomolecules: bulk resins, pre-packed columns and spin columns.





AFFINITY CHROMATOGRAPHY AGAROSE BEADS

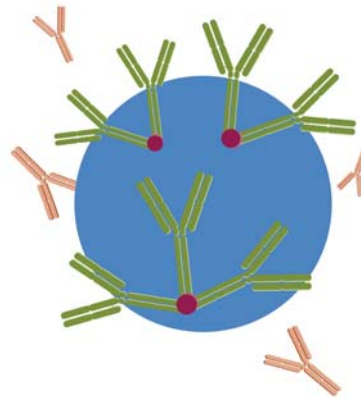


ANTIBODY PURIFICATION

Protein A beads are used for purifications of a wide range of Immunoglobulins of different mammalian species and also to purify certain IgG subclasses that have no affinity.

BENEFITS

- Get more of your antibody:
Higher IgG binding capacity.
- Get a better purification:
higher stability binding of the rProtein A.
- Save time and money:
Reusable. No leakage levels.
- Bulk and Pre-packed formats.





ENZYME & ANTIBODY IMMOBILIZATION AGAROSE BEADS



IMMOBILIZATION OF BIOMOLECULES

Immobilization is a technique that binds a biomolecule (enzyme, antibody, affinity proteins like Protein A or G) to a support giving high stability and making easier re-use of the biomolecule.

ABT offers **Glyoxal** and **Aminoethyl** beads, ready to add the ligand and that require no activation. Widely used in Biocatalysis as the beads immobilize enzymes that work as biocatalysts in some industrial processes.

ABT beads utilize a different and safer chemistry which produces a better binding of ligand to the bead.

Both resin types give the biomolecules increased stability through the covalent bonds of the enzyme or ligand to the agarose, thus facilitating recovery and later re-use.

BENEFITS

- Very high binding capacity.
- High immobilized enzyme stability.
- Irreversible protein binding.
- Reusable.
- Wider selection of products with different levels of binding capacity and degree of activation to optimize protein recovery.





AGAROSE BEAD
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