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BTS Provides the Best tools for Protein Purification!

PLAIN & CROSSLINKED AGAROSE BEADS

PROCEDURE FOR USE

DESCRIPTION

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.

Agarose beads can be used in column or batch format. Detailed below are some recommendations to consider in the column packaging and equilibration as well as in the subsequent sample application.

INSTRUCTIONS

COLUMN PACKAGING

The procedure for the correct packaging of the column is described below:

1. Manually shake the bottle to obtain a homogenous suspension of Plain or Crosslinked Agarose Beads and preservative. Place a funnel in the head of the column and slowly run suspension down the walls of the column.
   Note: it is advisable to make the addition slowly to avoid formation of bubbles. The product may also be degassed before it is added to the column.
2. Repeat previous steps until the desired column height is obtained.
3. Insert the adapter gently in the column head until it begins to displace the liquid and make sure no air is trapped under the net.
4. Connect the pump to the column and watch that the column height remains the same as the flow of distilled water is passing through.
5. When a constant height has been obtained, maintain the flow with the addition of 5 volumes of distilled water to completely eliminate the preservative.
6. Equilibrate the column with 2 - 5 volumes of elution buffer.
   Note: It is advisable to previously de-gas all the solutions before adding them to the column to avoid formation of bubbles. It is also advisable to add at least 0.2M of NaCl to the equilibration buffer to avoid ionic interactions.
7. It is advisable to utilize sample volumes of about 2-5% of the entire volume of the column.
8. For regeneration and later reuse of agarose beads, washing the column with 3 volumes before re-equilibrating with a new buffer is recommended.
   Note: If poor resolution or strange pressures are observed, it is advised to insert a washing step before proceeding to the re-equilibration step. This washing step can be done at a high ionic strength (thus eliminating precipitated or nonspecifically bound proteins) or adding a non-ionic detergent.

   It is advisable to keep the product in an appropriate preservative between uses.

STABILITY

PRODUCT	STUDIES	REAGENTS
PLAIN AGAROSE BEADS	THERMICAL STABILITY	No autoclavable
	CHEMICAL STABILITY	Stable to all solutions commonly used in Gel Filtration. Including 8M urea and 6M guanidine hydrochloride. Oxidizing agents is not advisable. Stable in acid (pH 4.0) and basic (pH 9.0) solutions. Resistant to biological degradation.
	PHYSICAL STABILITY	Negligible volume variation due to changes in pH or ionic strength.