NHS-Activated Magarose Beads

Index

1. Product Description.....1
2. Coupling Procedure.....1
3. Related Products.....2

1. Product Description

NHS-Activated Magarose Beads are pre-activated agarose magnetic microspheres which can be directly used in the coupling of amino proteins or polypeptides.The preactivation media can be prepared into special affinity media according to the needs, and the corresponding substances can be quickly and effectively purified in one step from the complex system.

Table 1. Characteristics of **NHS-Activated Magarose Beads**

Item	Description
Matrix	Magnetic agarose microspheres
Binding Capacity	>10mg IgG/ml
Particle Size (μm)	30-100
Storage Buffer	100% isopropanol
Magnetic beads volume	volume of magnetic beads accounts for 20% of the suspension volume
Storage Temperature	- 20°C

2. Coupling Procedure

2.1 Buffer Preparation

Water and chemicals used for buffer preparation should be of high purity. It is recommended filtering the buffers by passing them through a 0.22 μm or 0.45 μm filter before use.

Cleaning Buffer: 1mM HCl

Coupling Buffer: 0.2M $NaHCO_3$, 0.5M NaCl, pH8.0

Blocking Buffer: 0.5M ethcholamine, 0.5M NaCl, pH8.3 or 0.1M Tris, pH8.5

Wash Buffer 1: 0.1M acetic acid-sodium acetate, 0.5M NaCl, pH 4.0

Wash Buffer 2: 0.1M Tris-HCl, 0.5M NaCl, pH8.0

Storage Buffer: 1XPBS containing 20% ethanol

Note: Coupling should be performed in bicarbonate or borate buffers. Tris and other buffer salts containing amino groups or other nucleophilic components should not be used since these will couple to the medium.

2.2 Sample Preparation

Dissolve the sample in coupling solution with a concentration of about 5-10mg/ mL.

2.3 Ligand coupling

1) Prepare appropriate amount of **NHS-Activated Magarose Beads** then remove Storage Buffer. Wash the Beads with 1mM HCl solution and then with Coupling Buffer.

Note: The magnetic beads are immediately placed on the magnetic rack for adsorption after mixing with the cleaning solution.Precooled solution can be selected for quick cleaning to reduce the hydrolysis of preactivated media.

2) Add the dissolved samples to the cleaned **NHS-Activated Magarose Beads.** The volume ratio of the sample solution are about 1:1-2.

3) The oscillating reaction at 28℃ lasted for 2-4h or 4 ℃ through the night.

Note: Make sure the magnetic beads are suspended, otherwise the coupling efficiency will be greatly affected.

4) After the reaction, collect the coupled samples to test the coupling efficiency.Use deionized water to clean the magnetic beads, then add Blocking Buffer to oscillate the beads for 1 hour at 28℃.

5) Take out the above reaction system , and removal the Blocking Buffer. Clean the magnetic beads with 3 times of column volume of DEionized water, and rinse the meidum with the wash buffer 1, deionized water, wash buffer 2 and DEionized water repeatedly for 2 times, and then store in an equal volume of Storage Buffer at 2℃-8℃.

3. Related Products

Product	Cat. No.	Size
NHS-Activated Magarose Beads	SM031001	1ml
	SM031005	5ml
	SM031025	25ml
	SM031100	100ml
	SM03101L	1L