3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Activated CH-Sepharose® 4B

Catalog Number **A9019**
Storage Temperature 2-8 °C

Synonym: 6-Aminohexanoic acid N-hydroxysuccinimide ester-activated-Sepharose 4B

Product Description

This product is made by attaching 6-aminohexanoic acid to cyanogen bromide activated Sepharose 4B. The amino group of the 6-aminohexanoic acid is attached to the resin. The carboxylic acid functional group is then converted to the NHS ester. This resin is specific for primary amino groups, so other active groups in the ligand do not need to be protected prior to coupling.[1] When a compound with a primary amino group is coupled to the resin, the spacer arm between the compound and the resin is 8 atoms.

One gram of dry powder will swell to 2.4-4.3 ml of packed gel. One ml of packed gel contains ≥8 µmoles of active NHS group.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at 2-8 °C.

Procedure

1. Suspend 1 gram of powder in 200 ml of cold 1 mM HCl.
2. Filter and wash the swollen resin with cold 1 mM HCl.
3. Dissolve ligand in 0.1 M sodium bicarbonate, pH 8.0, containing 0.5 M NaCl.
4. Mix the ligand solution with the resin.
5. Mix thoroughly for at least 1 hour at room temperature or for at least 4 hours at 2-8 °C. Do not use a magnetic stirrer.
6. Block excess active groups with 1 M ethanolamine, pH 8, or 0.1 M Tris-HCl buffer, pH 8, for 1 hour.
7. Wash the resin to remove unbound ligand using cold 0.1 M sodium bicarbonate.
8. Wash the resin with 0.05 M Tris-HCl, 0.5 M NaCl, pH 8.0.
9. Wash the resin with 0.05 M sodium formate or sodium acetate, 0.5 M NaCl, pH 4.0.
10. Wash the resin with a neutral buffer
11. Store the washed gel at neutral pH in the presence of a suitable bacteriostatic agent at 2-8 °C

References

1. Affinity Chromatography: Principles & Methods (Pharmacia Fine Chemicals, 1983), p. 24.

PHC 02/06-1