

## Product Information

**" -CASEIN-AGAROSE**  
**Sigma Prod. No. C3905**  
**Storage temperature 2-8° C**

**CAS NUMBER:** N/A

**PHYSICAL DESCRIPTION:**

Form: Suspension in 0.5 M NaCl containing 0.02% thimerosal

**STORAGE / STABILITY AS SUPPLIED:**

Freezing will damage the agarose bead structure.

**METHOD OF PREPARATION:**

Matrix: 4% beaded agarose activated using cyanogen bromide

Attachment: Amino group of casein, Prod. No. C7891

Spacer: 1 atom

**USAGE:**

The resin should be washed well with several aliquots of buffer (50 mL per mL gel) to remove all NaCl and preservative, and any free ligand which may have leached from agarose during storage. The resin is stable in the range pH 5.0 to pH 9.0.

Casein-agarose may be used for the purification of protein kinases<sup>1,2</sup> and DNA-dependent RNA polymerases.<sup>2</sup> A suggested equilibration buffer: 10 mM Tris-HCl, pH 7.5, 10 mM MgCl<sub>2</sub>, 22 mM NH<sub>4</sub>Cl, 10 mM  $\beta$ -mercaptoethanol and 5% glycerol.<sup>2,3</sup> Elution of protein was effected by adding NaCl from 100 mM up to 600 mM to this buffer.<sup>3</sup>

Removing tightly bound material (due to nonspecific binding) may require using at least 10 column volumes of 1 M NaCl for each column volume of resin. If material still remains, a 2 M urea solution (at least 10 column volumes) may be successful.

**REFERENCES:**

1. Rahmsdorf, H.J. and Pai, S.-H., *Biochim. Biophys. Acta*, 267, 339-346 (1979).
2. *Affinity Chromatography: A Practical Approach*, Dean, Johnson and Middle, Eds. (IRL Press, Oxford, England, 1985), pp 125-131.
3. Sigma production department.

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