

Product Information

α -Chymotrypsin Agarose from Bovine Pancreas

Lyophilized powder, 2,000-3,500 units/g agarose (1 mL gel will yield 65-120 units)

C9134

Product Description

Storage Temperature: 2-8 °C

α -Chymotrypsin is a serine protease enzyme that is 241 amino acids in length, with three peptide chains:¹

- A chain: 13 residues
- B chain: 131 residues
- C chain: 97 residues

α -Chymotrypsin from bovine pancreas selectively catalyzes peptide bond hydrolysis on the C-terminal side of tyrosine (Tyr), phenylalanine (Phe), tryptophan (Trp), and leucine (Leu). Secondary hydrolysis also occurs on the C-terminal side of methionine (Met), isoleucine (Ile), serine (Ser), threonine (Thr), valine (Val), histidine (His), glycine (Gly), and alanine (Ala).¹

α -Chymotrypsin is both activated and stabilized by Ca^{2+} ions. The enzyme is active in the presence of 0.1% SDS and 2 M guanidine hydrochloride. Inhibitors of α -chymotrypsin include diisopropyl fluorophosphate (DFP), phenylmethane sulfonyl fluoride (PMSF), *N*-*p*-tosyl-L-phenylalanine chloromethyl ketone (TPCK), chymostatin, aprotinin, α 1-antitrypsin, and α 2-macroglobulin. α -Chymotrypsin is also completely inhibited by 10 mM Cu^{2+} and Hg^{2+} .²

This α -Chymotrypsin-Agarose product is prepared by the immobilization of α -Chymotrypsin, originally isolated from bovine pancreas, to activated cross-linked beaded agarose. Several references³⁻⁹ and dissertations¹⁰⁻¹³ have cited use of this C9134 product in their research protocols.

Precautions and Disclaimer

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

Product

This α -Chymotrypsin-Agarose product is sold as a lyophilized powder, stabilized with lactose.

Preparation Instructions

General instructions for re-suspension of our enzyme-agarose conjugates include the following steps.

1. Suspend the lyophilized enzyme-agarose to 5-10 mg solid/mL water.
2. Allow brief hydration of the lyophilized powder.
3. Filter and wash the rehydrated enzyme-agarose product several times with either water or your intended buffer.
4. Re-suspend the enzyme-agarose in your intended buffer. The product is now ready for use.

Storage/Stability

For re-use of our enzyme-agarose conjugates, the following steps may be used as a general guide:

- Wash the enzyme-agarose with water and/or buffer until it is free of substrates.
- For long-term storage, enzyme-agarose products may be re-converted to their dry form, as follows:
 - Wash the enzyme-agarose with the buffer of choice.
 - Drain excess buffer.
 - Dry the enzyme-agarose in a vacuum desiccator.
 - Store the freshly lyophilized enzyme-agarose at 2-8 °C.

References

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