Product Information

Trypsin-Agarose

Buffered aqueous suspension, enzyme from bovine pancreas

T1763

Product Description

Storage Temperature: 2-8 °C

Trypsin is a member of the serine protease family. The active site amino acid residues of trypsin include His^{46} and Ser^{183}.[2-4] Trypsin is a single chain polypeptide of 223 amino acid residues. Trypsin is produced by the removal of the N-terminal hexapeptide from trypsinogen which is cleaved at the Lys^{6}–Ile^{7} peptide bond. Trypsin contains 6 disulfide bridges as cross-linkages. This native form of trypsin is referred to as β-trypsin. Autolysis of β-trypsin (which is cleaved at Lys^{131}–Ser^{132}) results in α-trypsin, which is held together by disulfide bridges.

Trypsin cleaves peptides on the C-terminal side of lysine and arginine amino acid residues. The rate of hydrolysis is slower if an acidic residue is on either side of the cleavage site. No cleavage occurs if a proline residue is on the carboxyl side of the cleavage site. The pH optimum of trypsin is 7–9.[6]

This trypsin-agarose product is prepared by the immobilization of trypsin, originally isolated from bovine pancreas, to activated crosslinked beaded agarose. Several references[7-16] have cited use of this product in their research applications.

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 trypsin-agarose product is sold as a suspension in ~10 mM acetic acid, pH 3.2.

Preparation Instructions

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

- Suspend the lyophilized enzyme-agarose to 5-10 mg solid/mL water.
- Allow brief hydration of the lyophilized powder.
- Filter and wash the rehydrated enzyme-agarose product several times with either water or your intended buffer.
- 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. This specific enzyme-agarose conjugate may then be resuspended in a fresh stock of the parent buffer system.
- For long-term storage, enzyme-agarose products may be re-converted to their dry form, if desired, 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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