



Product Information

Elastase

Product Name: Elastase

Product Code: EB0438

Product Description

Molecular Formula: $C_{21}H_{30}N_2O$

Molecular Weight: 25.9 kDa

CAS Number: 39445-21-1

Activity: ≥ 3 U/mg

Storage: Keep it dry and protect it from light at $-20^{\circ}C$

Description

Porcine pancreatic elastase has a molecular weight of 25.9 kDa, and a pH optimum of 8.5. While elastase will hydrolyze a wide variety of protein substrates, it is unique among proteases in its ability to hydrolyze native elastin, a substrate not attacked by trypsin, chymotrypsin or pepsin. Soybean trypsin inhibitor and kallikrein inhibitor suppress proteolytic but not elastolytic activity. Elastase is assayed using a method adapted from that of Feinstein et al., Biochem. Biophys. Res. Comm., 50, 1020 (1973) and using the more soluble substrate of Bieth et al., Biochem. Med., 11,350 (1974).

Application

Two times crystallized, supplied as a dialyzed, lyophilized powder. The enzyme should be 0.22 micron filtered after reconstitution and prior to use. Suitable for the isolation of Type II lung cells.

Elastase is unstable at $pH \leq 3.5$. When stored as a dry powder, the enzyme is stable for 6-12 months at $2-8^{\circ}C$. Elastase products have poor solubility at neutral pH and at concentrations greater than 0.25%. It is helpful to make primary solutions in KCl or alkaline buffers before diluting into the reaction mixtures or media, compensating for ionic strength or pH changes. Stable at $pH = 4.0 \sim 10.4$.

Preparation Instructions Suggestions:

Accurately weigh 0.6000 Grams of elastase into 80mL of 0.05M of Na_2HPO_4 . Stir under hot water bath or on a hot plate until all powder is dissolved. After solution is cooling down, adjust pH to 7.0 using HCL and adjust final volume to 100mL before use.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.