

rec. L-Asparaginase

from E.coli

Product	Cat#	Package size
rec. L-Asparaginase from <i>E.coli</i>	S5197.0500	500 IU
rec. L-Asparaginase from <i>E.coli</i>	S5197.2500	2500 IU
rec. L-Asparaginase from <i>E.coli</i>	S5197.1010	10000 IU

Product description

L-Asparaginase is an enzyme that depletes L-Asparagine "an important nutrient for cancer cells" resulting in cancer/tumor cell starvation. L-Asparaginase is an anti-tumor agent derived from *E.coli.*, which can inhibit the growth of malignant cells. It is used mainly for the induction of remission in acute lymphoblastic leukaemia. Because of the lymph node origin of malignant B cells in Multiple Myeloma, L-Asparagine is an essential amino acid for their cell metabolism, and, consequently, L-Asparaginase may be of value in managing the disease.

The rationale behind asparaginase is that it takes advantage of the fact that ALL cells are unable to synthesize the non-essential amino acid asparagine whereas normal cells are able to make their own asparagine. These leukemic cells depend on circulating asparagine. Asparaginase however catalyzes the conversion of L-asparagine to aspartic acid and ammonia. This deprives the leukemic cell of circulating asparagine.

L-Asparaginase produced from *E.coli* containing 303 amino acids and having a molecular mass of 31731 Dalton.

Source: *Escherichia coli* ASI.357

Purity: >96% by SDS-PAGE

Formulation: The enzyme was lyophilized with no additives.

Solubility:

It is recommended to reconstitute the lyophilized L-Asparaginase in demineralised water or 0.9% NaCl solution at 1mg/mL.

Stability

Rec. L-Asparaginase should be stored at -20°C after receipt. The enzyme is stable for 2 years if stored at -20°C.

It is stable at +2°C to +8°C for at least 2 weeks.

Please avoid repeated freeze-thaw cycles.

Activity

One unit of L-Asparaginase is defined as that amount of enzyme required to generate 1 µmol of ammonia per minute at pH 7.3 and 37°C.

Specific activity: The enzyme has a specific activity of: 102 IU/mg.

Usage

This product is for research/laboratory usage only. It may not be used as drug, agricultural or pesticidal product, food additive or household chemical.