BioVendor Laboratory Medicine, Inc.

L-Asparaginase

Product Data Sheet / Certificate of Analysis

Cat. No.:	**RP1792870500**	**RP1792872500**	**RP17928710000**
	500IU	**2500IU**	**10,000IU**

Introduction:
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 cellsare unable to synthesize the non-essential amino acidasparagine 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.

Description:
L-Asparaginase produced from E.Coli containing 303 amino acids and having a molecular mass of 31731 Dalton.

Source:
Escherichia Coli

Physical Appearance:
Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:
The enzyme was lyophilized with no additives.

Purity:
Greater than 96.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Solubility:
It is recommended to reconstitute the lyophilized L-Asparaginase in 18MOhm water at 1 mg/ml.

Stability:
Lyophilized L-Asparaginase although stable at room temperature for 3 weeks, should be stored desiccated at or below -20°C. Upon reconstitution L-Asparaginase should be stored at 4°C between 2-7 days and for future use at or below -20°C

Unit Definition:
One unit of enzyme catalyzes hadrylazation of 10 nanomoles of dUTP to dUMP in one hour at 85 Centigrade.

Activity:
One IU 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:
225 IU/mg

Usage:
BioVendor's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.