

# L-Asparaginase

<b>CATALOG NO:</b>	P1321-500      500 IU P1321-2500      2500 IU P1321-10000      10,000 IU
<b>ALTERNATE NAMES:</b>	L-asparagine amidohydrolase, L-ASNase, Escherichia coli L-asparaginase, L-ASP, Colaspase, ASP-1, crisantaspase
<b>SOURCE:</b>	<i>E. coli</i> ASI.357
<b>PURITY:</b>	≥ 96.0% by SDS-PAGE and RP-HPLC analyses
<b>SPECIFIC ACTIVITY:</b>	225 IU/mg
<b>FORM:</b>	Sterile Filtered, white lyophilized (freeze-dried) powder. Lyophilized with no additives
<b>STORAGE CONDITIONS:</b>	Store at -20 °C. Avoid repeated freezing and thawing cycles.
<b>BIOLOGICAL ACTIVITY:</b>	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.
<b>UNIT DEFINITION:</b>	One unit of enzyme catalyzes hydrolyzation of 10 nanomoles of dUTP to dUMP in one hour at 85 °C.
<b>RECONSTITUTION:</b>	It is recommended to reconstitute the lyophilized L-Asparaginase in 18 M-cm H <sub>2</sub> O at 1 mg/ml.
<b>DESCRIPTION:</b>	L-Asparaginase was purified from <i>E.coli</i> ASI.357. 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 leukemia. 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.

## RELATED PRODUCTS:

- Asparaginase Activity Colorimetric/Fluorometric Assay Kit (**Cat. No. K754**)
- Anti-ASRGL1 Antibody (CRASH/1289) (**Cat. No. A1431**)
- BACE2/Asp1 Antibody (**Cat. No. 6102**)

**FOR RESEARCH USE ONLY! Not to be used on humans.**