



LKT Laboratories, Inc.

Asparaginase

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Product Information

Product ID A7460

CAS No. 9015-68-3

Chemical Name

Synonym Colaspase

Formula $C_{1377}H_{2208}N_{382}O_{442}S_{17}$

Formula Wt. 31731.9

Melting Point

Purity $\geq 98\%$

Solubility Soluble in water (1 mg/mL).

Store Temp 4°C

Ship Temp Ambient

Description Asparaginase is an enzyme that catalyzes the hydrolysis of asparagine to aspartate and ammonia, depleting asparagine levels and inhibiting cell growth; it is commonly used as an anticancer chemotherapeutic and anti-angiogenic compound in the treatment of leukemia. Asparaginase inhibits proliferation of acute myelogenous leukemia (AML) cells, inducing apoptosis mediated by apoptosis-inducing factor (AIF). Asparaginase decreases B1 integrin binding and phosphorylation of FAK, inducing autophagy; this decreases microvascular endothelial cell tube formation and inhibits invasion of ovarian cancer cells. In clinical settings, asparaginase may induce thrombotic effect, as administration often results in depletion of anti-thrombin, and it may also increase serum triglycerides.

Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
A7460	1 mg	\$63.60
A7460	5 mg	\$136.70
A7460	25 mg	\$364.60

References He Y, Li B, Zhang H, et al. L-asparaginase induces in AML U937 cells apoptosis via an AIF-mediated mechanism. *Front Biosci (Landmark Ed)*. 2014 Jan 1;19:515-27. PMID: 24389199.

Yu M, Henning R, Walker A, et al. L-asparaginase inhibits invasive and angiogenic activity and induces autophagy in ovarian cancer. *J Cell Mol Med*. 2012 Oct;16(10):2369-78. PMID: 22333033.

Nomme J, Su Y, Konrad M, et al. Structures of apo and product-bound human L-asparaginase: insights into the mechanism of autoproteolysis and substrate hydrolysis. *Biochemistry*. 2012 Aug 28;51(34):6816-26. PMID: 22861376.

Mitchell L, Andrew M, Hanna K, et al. Trend to efficacy and safety using antithrombin concentrate in prevention of thrombosis in children receiving l-asparaginase for acute lymphoblastic leukemia. Results of the PAARKA study. *Thromb Haemost*. 2003 Aug;90(2):235-44. PMID: 12888870.

Cremer P, Lakomek M, Beck W, et al. The effect of L-asparaginase on lipid metabolism during induction chemotherapy of childhood lymphoblastic leukaemia. *Eur J Pediatr*. 1988 Jan;147(1):64-7. PMID: 3422190.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.