LKT Laboratories, Inc.

Asparaginase

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Product Information

Product ID A7460
CAS No.
Chemical Name

Synonym Colaspase

Formula $C_{1377}H_{2208}N_{382}O_{442}S_{17}$
Formula Wt. 31731.9
Melting Point
Purity ≥98%
Solubility

Bulk quanitites available upon request

Product ID	Size
A7460	1 mg
A7460	5 mg
A7460	25 mg

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 ß1 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.

References

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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.

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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.

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