



LKT Laboratories, Inc.

Chlorophyllin Sodium-Copper Salt

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Product Information

Product ID C2945

CAS No. 11006-34-1

Chemical Name

Synonym Chlorophyllin A

Formula $C_{34}H_{31}CuN_4Na_3O_6$

Formula Wt. 724.15

Melting Point

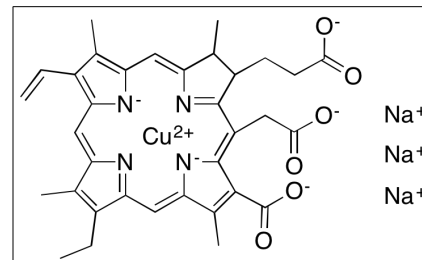
Purity USP 28

Solubility Soluble in water, slightly
soluble in alcohol and
chloroform.

Store Temp Ambient

Ship Temp Ambient

Description Chlorophyllin is a semi-synthetic derivative of chlorophyll that is commercially used as a food additive and coloring agent. Chlorophyllin exhibits anti-angiogenic, anticancer chemotherapeutic, and chemopreventive activities. Chlorophyllin can act as a photosensitizer, inducing apoptosis and autophagy under UV light in bladder cancer cells. In vivo, chlorophyllin decreases expression of HDACs, VEGF, VEGFR2, and HIF-1 α and suppresses Wnt/ β -catenin signaling. In vitro, this compound decreases DNA adduct formation induced by benzo[a]pyrene. Chlorophyllin also decreases carcinogenesis, mortality, and tumor number in animal models of DBP-induced carcinogenesis.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
C2945	5 g	\$30.80
C2945	25 g	\$77.40
C2945	100 g	\$248.10

References Lihuan D, Jingcun Z, Ning J, et al. Photodynamic therapy with the novel photosensitizer chlorophyllin f induces apoptosis and autophagy in human bladder cancer cells. *Lasers Surg Med.* 2014 Apr;46(4):319-34. PMID: 24464873.

Nagini S, Vidya Priyadarsini R, Veeravarmal V, et al. Chlorophyllin abrogates canonical Wnt/ β -catenin signaling and angiogenesis to inhibit the development of DMBA-induced hamster cheek pouch carcinomas. *Cell Oncol (Dordr).* 2012 Oct;35(5):385-95. Erratum in: *Cell Oncol (Dordr).* 2013 Apr;36(2):179. PMID: 22983718.

Keshava C, Divi RL, Einem TL, et al. Chlorophyllin significantly reduces benzo[a]pyrene-DNA adduct formation and alters cytochrome P450 1A1 and 1B1 expression and EROD activity in normal human mammary epithelial cells. *Environ Mol Mutagen.* 2009 Mar;50(2):134-44. PMID: 19152381.

Castro DJ, L  hr CV, Fischer KA, et al. Identifying efficacious approaches to chemoprevention with chlorophyllin, purified chlorophylls and freeze-dried spinach in a mouse model of transplacental carcinogenesis. *Carcinogenesis.* 2009 Feb;30(2):315-20. PMID: 19073876.

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