



LKT Laboratories, Inc.

Chlorophyllin Sodium-Copper Salt

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

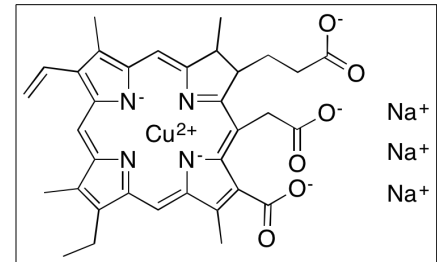
Product Information

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



Bulk quantities available upon request

Product ID	Size
C2945	5 g
C2945	25 g
C2945	100 g

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.

- 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, Löhner 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.