LKT Laboratories, Inc.

Theaflavin

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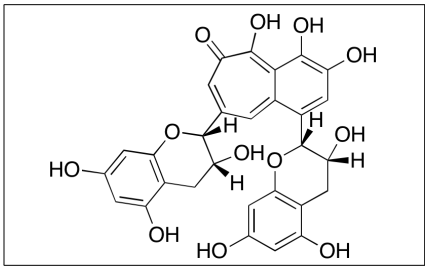
Product Information

Product ID T286161
CAS No. 4670-05-7
Chemical Name 3,4,6-trihydroxy-1,8-bis(3,5,7-trihydroxy-3,4-dihydro-2H-1-benzopyran-2-yl)-5H-benzo[7]annulen-5-one

Synonym Theaflavine, 1,8-Bis((2R,3R)-3,5,7-trihydroxy-2H-1-benzopyran-2-yl)-3,4,6-trihydroxy-5H-benzocyclohepten-5-one.

Formula $C_{29}H_{24}O_{12}$
Formula Wt. 564.50
Melting Point
Purity ≥98%
Solubility DMSO (Slightly), Methanol (Slightly)



Bulk quanitites available upon request

Product ID	Size
T286161	1 mg
T286161	5 mg
T286161	10 mg

Store Temp 4°C
Ship Temp Ambient

Description Theaflavin is a polyphenolic compound found in black tea. The theaflavins are formed during the enzymatic oxidation of catechins, which happens during processing of the fresh tea leaves. Studies have shown theaflavin to block expression of myeloperoxidase, inflammation-related gene ICAM-1, COX-2, and iNOS, in addition to inhibiting expression of pro-inflammatory mediators by disrupting NF-kB activation. Theaflavin has also shown inhibitory effects on ovarian cancer cells OVCAR-3 and A2780/CP70 by inducing apoptosis. In addition, C. albicans, a pathogen often found as part of the human microflora, was inhibited by theaflavin, confirming that it is also an effective antifungal agent. Furthermore, when used in combination with conventional antibiotics, theaflavin was found to potentiate antibacterial activity against P gingivalis and P intermedia thereby inhibiting growth of the periodontopathogens.

References

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Gao Y, Rankin GO, Tu Y, et al. Inhibitory effects of the four main theaflavin derivatives found in black tea on ovarian cancer cells. Anticancer Res. 2016 Feb;36(2):643-651. PMID: 26851019.

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