



LKT Laboratories, Inc.

8-Gingerol

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Product Information

Product ID G3253

CAS No. 23513-08-8

Chemical Name

Synonym

Formula $C_{19}H_{30}O_4$

Formula Wt. 322.44

Melting Point

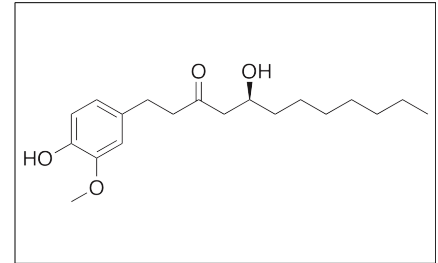
Purity $\geq 99\%$

Solubility 1mg/ml in methanol

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description 8-Gingerol is originally found in species of *Zingiber*; it exhibits antiemetic, anti-diabetic, anticancer, immunosuppressive, antioxidative, anti-inflammatory, cardiomodulatory, and anti-asthma activities. 8-Gingerol inhibits 5-HT₃ receptors and also attenuates airway hyperresponsiveness in animal models. 8-Gingerol also increases glucose uptake and upregulates expression of GLUT4 in vitro. This compound inhibits ConA-, LPS-, and OVA-stimulated splenocyte proliferation and decreases levels of CD19+ B cells, CD3+ T cells, and IgG in vivo. Additionally, 8-gingerol increases radical scavenging of superoxide and hydroxyl radicals, inhibits oxidative burst activity, and decreases expression of NO and PGE₂ in vitro. In animal models, 8-gingerol displays positive inotropic activity, increasing longitudinal contractions, decreasing peak tension and relaxation times, and increasing sarcoplasmic Ca²⁺ uptake. This compound also inhibits proliferation of breast adenocarcinoma cells.



Bulk quantities available upon request

Product ID	Size
G3253	1 mg
G3253	5 mg
G3253	25 mg

References Townsend EA, Siviski ME, Zhang Y, et al. Effects of ginger and its constituents on airway smooth muscle relaxation and calcium regulation. *Am J Respir Cell Mol Biol.* 2013 Feb;48(2):157-63. PMID: 23065130.

Li Y, Tran VH, Duke CC, et al. Gingerols of *Zingiber officinale* enhance glucose uptake by increasing cell surface GLUT4 in cultured L6 myotubes. *Planta Med.* 2012 Sep;78(14):1549-55. PMID: 22828920.

Almada da Silva J, Becceneri AB, Sanches Mutti H, et al. Purification and differential biological effects of ginger-derived substances on normal and tumor cell lines. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2012 Aug 15;903:157-62. PMID: 22858304.

Lu J, Guan S, Shen X, et al. Immunosuppressive activity of 8-gingerol on immune responses in mice. *Molecules.* 2011 Mar 22;16(3):2636-45. PMID: 21441866.

Dugasani S, Pichika MR, Nadarajah VD, et al. Comparative antioxidant and anti-inflammatory effects of [6]-gingerol, [8]-gingerol, [10]-gingerol and [6]-shogaol. *J Ethnopharmacol.* 2010 Feb 3;127(2):515-20. PMID: 19833188.

Abdel-Aziz H, Windeck T, Ploch M, et al. Mode of action of gingerols and shogaols on 5-HT₃ receptors: binding studies, cation uptake by the receptor channel and contraction of isolated guinea-pig ileum. *Eur J Pharmacol.* 2006 Jan 13;530(1-2):136-43. PMID: 16364290.

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