



LKT Laboratories, Inc.

Zerumbone

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Product Information

Product ID Z1970

CAS No. 471-05-6

Chemical Name

Synonym

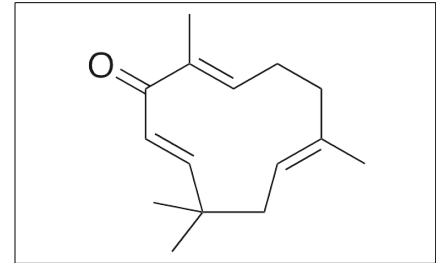
Formula $C_{15}H_{22}O$

Formula Wt. 218.33

Melting Point

Purity $\geq 96\%$

Solubility DMSO (≥ 10 mg/mL)



Product ID	Size
Z1970	10 mg
Z1970	50 mg

Store Temp 4° C

Ship Temp Ambient

Description Zerumbone is a cyclic sesquiterpene compound found in ginger root. Zerumbone exhibits a wide variety of beneficial properties, including anti-hyperlipidemic, anticancer chemotherapeutic, anti-angiogenic, antioxidative, antinociceptive, and anti-inflammatory activities. In an animal model of nonalcoholic fatty liver disease, zerumbone upregulates expression of PPAR α and enzymes involved in lipid oxidation and downregulates expression of fatty acid synthase and lipogenic genes, resulting in decreased total cholesterol and triglyceride levels in plasma and improvements in lipid sensitivity. In several cancer cell lines, zerumbone inhibits expression of VEGF and activity of IKK α and NF- κ B and activates caspases 3 and 9 and cleavage of poly(ADP)-ribose polymerase (PARP), resulting in apoptosis and decreased cellular proliferation. In both cellular and animal models, this compound displays antioxidative benefit, activating Nrf2 and increasing expression of heme oxygenase 1 (HO-1), resulting in decreased levels of reactive oxygen species (ROS). In vivo, zerumbone exhibits antinociceptive characteristics and is thought to act through L-arginine-NO-cGMP-PKC-K $^{+}$ channel pathways and TRPV1 channels. Zerumbone also decreases paw edema and granulomatous tissue formation in animal models of inflammation.

References Tsuboi K, Matsuo Y, Shamoto T, et al. Zerumbone inhibits tumor angiogenesis via NF- κ B in gastric cancer. *Oncol Rep.* 2014 Jan;31(1):57-64. PMID: 24220661.

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