



LKT Laboratories, Inc.

CAL101

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## Product Information

Product ID C0044

CAS No. 870281-82-6

### Chemical Name

Synonym Idelalisib, GS1101, CAL-101

Formula  $C_{22}H_{18}FN_7O$

Formula Wt. 415.42

### Melting Point

Purity  $\geq 98\%$

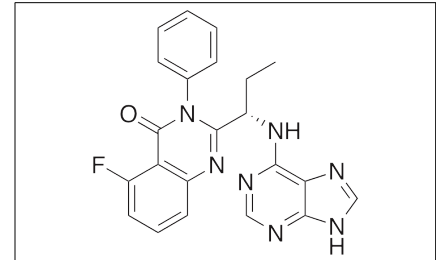
Solubility DMSO 83 mg/mL warmed  
(199.79 mM)  
Ethanol 23 mg/mL (55.36  
mM)  
Water Insoluble

Store Temp 4°C

Ship Temp Ambient

### Description

CAL101 is an inhibitor of p110 $\delta$  PI3K that is clinically used to treat leukemias such as mantle cell lymphoma and chronic lymphocytic leukemia (CLL). CAL101 exhibits anticancer chemotherapeutic and immunosuppressive activities. In mantle cell lymphoma cells, CAL101 induces G1 phase cell cycle arrest and apoptosis. In non-Hodgkin lymphoma and CLL cells, CAL101 inhibits downstream phosphorylation of Akt and induces apoptosis. Additionally, this compound inhibits cell chemotaxis, decreases chemokine production, inhibits migration, and prevents ERK- and Akt-dependent B-cell receptor signaling in CLL cells.



**Bulk quantities available upon request**

Product ID	Size
C0044	1 mg
C0044	5 mg
C0044	10 mg

**References** Sanford DS, Wierda WG, Burger JA, et al. Three Newly Approved Drugs for Chronic Lymphocytic Leukemia: Incorporating Ibrutinib, Idelalisib, and Obinutuzumab into Clinical Practice. *Clin Lymphoma Myeloma Leuk.* 2015 Feb 19. [Epub ahead of print]. PMID: 25817936.

Chiron D, Martin P, Di Liberto M, et al. Induction of prolonged early G1 arrest by CDK4/CDK6 inhibition reprograms lymphoma cells for durable PI3K $\delta$  inhibition through PIK3IP1. *Cell Cycle.* 2013 Jun 15;12(12):1892-900. PMID: 23676220.

Meadows SA, Vega F, Kashishian A, Johnson D, et al. PI3K $\delta$  inhibitor, GS-1101 (CAL-101), attenuates pathway signaling, induces apoptosis, and overcomes signals from the microenvironment in cellular models of Hodgkin lymphoma. *Blood.* 2012 Feb 23;119(8):1897-900. PMID: 22210877.

Hoellenriegel J, Meadows SA, Sivina M, et al. The phosphoinositide 3'-kinase delta inhibitor, CAL-101, inhibits B-cell receptor signaling and chemokine networks in chronic lymphocytic leukemia. *Blood.* 2011 Sep 29;118(13):3603-12. PMID: 21803855.

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