



LKT Laboratories, Inc.

LY-294002

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Product Information

Product ID L4796

CAS No. 154447-36-6

Chemical Name

Synonym

Formula $C_{19}H_{17}NO_3$

Formula Wt. 307.34

Melting Point

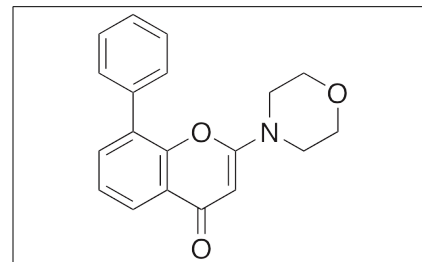
Purity $\geq 99\%$

Solubility DMSO 36 mg/mL (117.13 mM)
Ethanol 21 mg/mL (68.32 mM)
Water Insoluble

Store Temp Ambient

Ship Temp Ambient

Description LY294002 is an inhibitor of PI3K that is used to sensitize cancer cells to other co-administered anticancer chemotherapeutics. In macrophages and monocytes, LY294002 inhibits NF- κ B activity and decreases levels of p50 NF- κ B; it also inhibits LPS-induced expression of IL-10. LY294002 prevents ruffled border formation in osteoclasts by altering the binding of acidic vacuoles with the intercellular membrane. Additionally, this compound inhibits DNA-dependent protein kinase (DPK) activity and prevents the formation of NO.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
L4796	5 mg	\$64.60
L4796	25 mg	\$214.70
L4796	100 mg	\$686.90

References Avni D, Glucksam Y, Zor T. The phosphatidylinositol 3-kinase (PI3K) inhibitor LY294002 modulates cytokine expression in macrophages via p50 nuclear factor κ B inhibition, in a PI3K-independent mechanism. *Biochem Pharmacol.* 2012 Jan 1;83(1):106-14. PMID: 22005520.

Salh B, Wagey R, Marotta A, et al. Activation of phosphatidylinositol 3-kinase, protein kinase B, and p70 S6 kinases in lipopolysaccharide-stimulated Raw 264.7 cells: differential effects of rapamycin, Ly294002, and wortmannin on nitric oxide production. *J Immunol.* 1998 Dec 15;161(12):6947-54. PMID: 9862729.

Nakamura I, Sasaki T, Tanaka S, et al. Phosphatidylinositol-3 kinase is involved in ruffled border formation in osteoclasts. *J Cell Physiol.* 1997 Aug;172(2):230-9. PMID: 9258344.

Rosenzweig KE, Youmell MB, Palayoor ST, et al. Radiosensitization of human tumor cells by the phosphatidylinositol3-kinase inhibitors wortmannin and LY294002 correlates with inhibition of DNA-dependent protein kinase and prolonged G2-M delay. *Clin Cancer Res.* 1997 Jul;3(7):1149-56. PMID: 9815794.

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