

LY294002

Catalog No: tcsc0150



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g



Specifications

CAS No:

154447-36-6

Formula:

$C_{19}H_{17}NO_3$

Pathway:

PI3K/Akt/mTOR;Autophagy

Target:

PI3K;Autophagy

Storage Buffer:

5% DMSO+ 40%PEG 300+5% Tween 80+50%water , 3 mg/mL

Purity / Grade:

>98%

Solubility:

DMSO : 51.67 mg/mL (168.1 mM)

Water: insoluble

Storage Instruction:

Powder: -20°C for 3 years In solvent : -80°C for 12 months

Alternative Names:

NSC 697286;SF 1101

Observed Molecular Weight:

307.34

Notes

LY294002 acts at the ATP-binding site of the PI3Ks enzyme.

Product Description

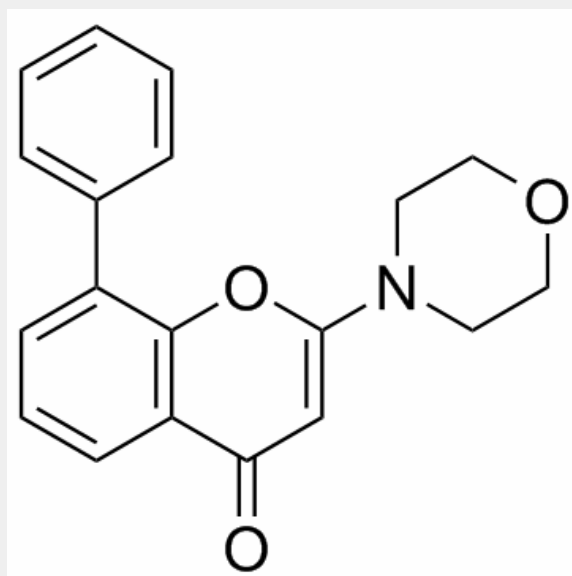
LY294002 is a broad-spectrum inhibitor of **PI3K** with **IC₅₀**s of 0.5, 0.57, and 0.97 μ M for **PI3K α** , **PI3K δ** and **PI3K β** , respectively. It also inhibits **CK2** with an **IC₅₀** of 98 nM.

IC50 & Target: IC50: 0.5/0.57/0.97 μ M (PI3K α / δ / β)^[1]

IC50: 98 nM (CK2)^[2]

In Vitro: LY294002 (5 μ M) completely inhibits the phosphorylation of PKB In HepG2 cells. LY294002 (5 μ M) is also shown to block insulin-induced phosphorylation of PKB Ser⁴⁷³ in CHO-IR cells^[1]. LY294002 is also a potent inhibitor of CK2 (casein kinase 2) with IC₅₀ of 98 nM. LY294002 is also able to reduce the kinase activity of both isoforms of the serine/threonine kinases GSK3 α and β ^[2]. When the CNE-2Z cell line is cultured in medium containing LY294002(0 μ M, 10 μ M, 25 μ M, 50 μ M, and 75 μ M) for 24 h and 48 h, cell proliferation is remarkably decreased in a dose-dependent fashion^[3].

In Vivo: Treatment with LY294002 (i.p.,50 mg/kg, 75 mg/kg) significantly reduces mean NPC tumor burden as compared with the control group. Treatment with 10 mg/kg or 25 mg/kg LY294002 is less effective in decreasing tumor burden. Mean NPC tumor burden treated with LY294002 is remarkably decreased in a dose-dependent manner, whereas mean body weight is no obvious difference between control and treated groups (LY294002, 10 mg/kg, 25 mg/kg, 50 mg/kg, and 75 mg/kg)^[3].



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