

# LY294002

**Catalog No: tcsc0150**



## Available Sizes

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**Size:** 10mg

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**Size:** 50mg

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**Size:** 100mg

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**Size:** 200mg

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**Size:** 500mg

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**Size:** 1g

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## Specifications

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**CAS No:**

154447-36-6

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**Formula:**

$C_{19}H_{17}NO_3$

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**Pathway:**

PI3K/Akt/mTOR;Autophagy

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**Target:**

PI3K;Autophagy

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**Storage Buffer:**

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

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**Purity / Grade:**

>98%

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**Solubility:**

DMSO : 51.67 mg/mL (168.1 mM)

Water: insoluble

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**Storage Instruction:**

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

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**Alternative Names:**

NSC 697286;SF 1101

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**Observed Molecular Weight:**

307.34

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**Notes**

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

**Product Description**

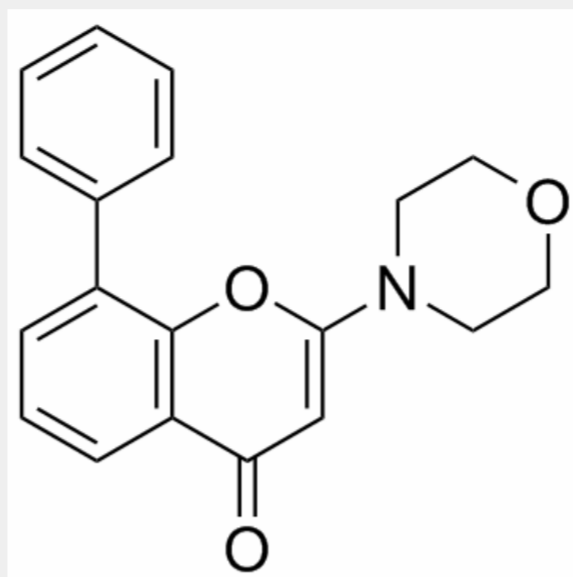
LY294002 is a broad-spectrum inhibitor of **PI3K** with **IC<sub>50</sub>**s of 0.5, 0.57, and 0.97 μM for **PI3Kα**, **PI3Kδ** and **PI3Kβ**, respectively. It also inhibits **CK2** with an **IC<sub>50</sub>** of 98 nM.

IC50 & Target: IC50: 0.5/0.57/0.97 μM (PI3Kα/δ/β)<sup>[1]</sup>

IC50: 98 nM (CK2)<sup>[2]</sup>

**In Vitro:** LY294002 (5 μM) completely inhibits the phosphorylation of PKB In HepG2 cells. LY294002 (5 μM) is also shown to block insulin-induced phosphorylation of PKB Ser<sup>473</sup> in CHO-IR cells<sup>[1]</sup>. LY294002 is also a potent inhibitor of CK2 (casein kinase 2) with IC<sub>50</sub> of 98 nM. LY294002 is also able to reduce the kinase activity of both isoforms of the serine/threonine kinases GSK3α and β<sup>[2]</sup>. When the CNE-2Z cell line is cultured in medium containing LY294002(0 μM, 10 μM, 25 μM, 50 μM, and 75 μM) for 24 h and 48 h, cell proliferation is remarkably decreased in a dose-dependent fashion<sup>[3]</sup>.

**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)<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!