

#9901 Store at -20C	LY294002	
	1.5 mg	
3 Trask Lane Danvers Massachusetts 01923 USA		

For Research Use Only. Not for Use in Diagnostic Procedures.

Background

LY294002 was shown to act in vivo as a highly selective inhibitor of phosphatidylinositol 3 (PI3) kinase. When used at a concentration of 50 μ M, it specifically abolished PI3 kinase activity (IC_{50} =0.43 μ g/ml; 1.40 μ M) but did not inhibit other lipid and protein kinases such as PI4 kinase, PKC, MAP kinase or c-Src (1). LY294002 is soluble in DMSO or ethanol. For use with in vitro or cell-based assays, it may be diluted into aqueous buffers to yield the desired concentrations. For experiments with cultured cells, CST recommends treating the cells with LY294002 for one hour prior to, and for the duration of, the stimulation. LY294002 has been shown to block PI3 kinase-dependent Akt phosphorylation and kinase activity.

Molecular Formula

$C_{19}H_{17}NO_3$

Molecular Weight

307.35 g/mol

Purity

>99%

CAS

154447-36-6

Solubility

Soluble in DMSO and EtOH at 25mg/ml.

Storage

Store lyophilized or in solution at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use:

For 10 mM stock, reconstitute 1.5 mg in 488 μ l DMSO. For 50 mM stock, reconstitute 1.5 mg in 98 μ l DMSO. Store aliquots at -20°C.

Background References

1. Vlahos, C. (1994) *J. Biol. Chem.* 269, 5241-5248.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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