



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

#9901 Store at -20C

**LY294002**

1.5 mg

**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  $\mu$ M, it specifically abolished PI3 kinase activity ( $IC_{50}$ =0.43  $\mu$ g/ml; 1.40  $\mu$ 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  $\mu$ l DMSO. For 50 mM stock, reconstitute 1.5 mg in 98  $\mu$ l DMSO. Store aliquots at -20°C.

## Background References

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

## Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.

