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Product Information

LY 303511 dihydrochloride

Catalog Number **L2786**
Store at Room Temperature

CAS RN: 854127-90-5
154447-38-8 free base

Synonym: 8-Phenyl-2-(1-piperazinyl)-4H-1-benzopyran-4-one dihydrochloride

Product Description

Molecular Formula: $C_{19}H_{18}N_2O_2 \cdot 2 HCl$
Molecular Weight: 379.28

Phosphatidylinositol 3-kinase, PI3K, is an enzyme implicated in growth factor signal transduction by associating with receptor and nonreceptor tyrosine kinases, including the platelet-derived growth factor receptor.¹

LY-294,002 is a specific, cell permeable PI3K inhibitor. A single atom substitution, replacing an oxygen with nitrogen to form a piperazine ring, produced a new compound, LY 303511, an inactive analog that does not inhibit PI3K or O_2 generation.² Unlike LY-294,002 which blocks *E. coli* invasion of human brain microvascular endothelial cells (HBMEC) in a dose-dependent manner, LY 303511 has no such effect.³ The studies using PI3K inhibitors and inactive analogs could potentially lead to a better understanding of the regulatory mechanisms of this enzyme.¹

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Soluble in water at 14 mg/ml.

Storage/Stability

Store at room temperature, desiccated.

References

1. Vlahos, C.J., et al., Investigation of neutrophil signal transduction using a specific inhibitor of phosphatidylinositol 3-kinase. *J. Immunol.*, **154**, 2413-2422 (1995).
2. Ding, J., et al., Antagonists of phosphatidylinositol 3-kinase block activation of several novel protein kinases in neutrophils. *J. Biol. Chem.*, **270**, 11684-11691 (1995).
3. Reddy, M.A. et al., Phosphatidylinositol 3-kinase activation and interaction with focal adhesion kinase in *Escherichia coli* K1 invasion of human brain microvascular endothelial cells. *J. Biol. Chem.*, **275**, 36769-36774 (2000).

PHC 02/06-1

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