

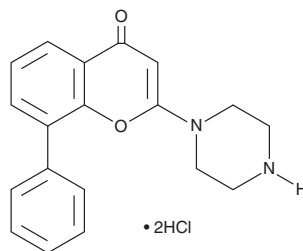
# PRODUCT INFORMATION



## LY303511 (hydrochloride)

Item No. 15514

**CAS Registry No.:** 854127-90-5  
**Formal Name:** 8-phenyl-2-(1-piperazinyl)-4H-1-benzopyran-4-one, dihydrochloride  
**MF:** C<sub>19</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub> • 2HCl  
**FW:** 379.3  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

LY303511 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the LY303511 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. LY303511 (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. LY303511 (hydrochloride) is soluble in ethanol and DMSO to 100 mM.

### Description

LY303511 is a close structural analog of LY294002 (Item No. 70920), a selective phosphatidylinositol 3-kinase (PI3K) inhibitor.<sup>1</sup> LY303511, however, does not inhibit PI3K-dependent phosphorylation of Akt but instead has been shown to inhibit mTOR-dependent phosphorylation of S6K.<sup>1</sup> It can reduce cell proliferation in human lung epithelial adenocarcinoma cells, blocking G<sub>2</sub>/M progression and inhibiting casein kinase 2 activity.<sup>1</sup> LY303511 demonstrates tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) sensitizing activity in HeLa cells that are refractory to TRAIL-induced apoptosis.<sup>2</sup> LY303511 is also reported to block voltage-gated potassium (K<sub>v</sub>) channels.<sup>3</sup>

### References

1. Kristof, A.S., Pacheco-Rodriguez, G., Schremmer, B., *et al.* LY303511 (2-piperazinyl-8-phenyl-4H-1-benzopyran-4-one) acts *via* phosphatidylinositol 3-kinase-independent pathways to inhibit cell proliferation *via* mammalian target of rapamycin (mTOR)- and non-mTOR-dependent mechanisms. *J. Pharmacol. Exp. Ther.* **314**(3), 1134-1143 (2005).
2. Mellier, G., Liu, D., Bellot, G., *et al.* Small molecule sensitization to TRAIL is mediated *via* nuclear localization, phosphorylation and inhibition of chaperone activity of Hsp27. *Cell Death Dis.* **4**, e890 (2013).
3. Pattnaik, B.R. and Hughes, B.A. Regulation of Kir channels in bovine retinal pigment epithelial cells by phosphatidylinositol 4,5-bisphosphate. *Am. J. Physiol. Cell Physiol.* **297**(4), C1001-C1011 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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