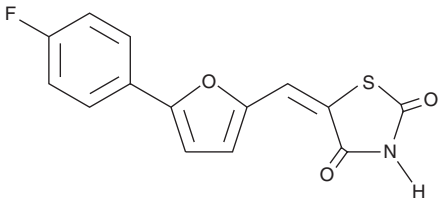
PRODUCT INFORMATION

CAY10505

Item No. 10009078

CAS Registry No.:	328960-84-5
Formal Name:	5-[[5-(4-fluorophenyl)-2-furanyl] methylene]-2,4-thiazolidinedione
MF:	$C_{14}H_8FNO_3S$
FW:	289.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 238, 270, 389 nm
Supplied as:	A crystalline 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

CAY10505 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10505 in the solvent of choice, which should be purged with an inert gas. CAY10505 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CAY10505 in these solvents is approximately 20 mg/ml.

CAY10505 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10505 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10505 has a solubility of approximately 0.15 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Phosphoinositide 3-kinase γ (PI3Kγ), expressed primarily in hematopoietic cells, plays several important roles in immunity. CAY10505 is a potent inhibitor of PI3K, selectively inhibiting the γ isoform (IC_{50} = 30 nM) better than the α, β, and δ isoforms (IC_{50} = 0.94, 20, and 20 µM, respectively). Tested against a panel of 80 other kinases, CAY10505 significantly inhibits only the unrelated casein kinase 2 (CK2, IC_{50} = 20 nM). It also inhibits the phosphorylation of the PI3K substrate PKB/Akt in mouse macrophages (IC_{50} = 228 nM). Oral administration of CAY10505 reduces neutrophil recruitment in mice to an extent that is comparable to that observed in PI3Kγ-deficient mice.[1]

Reference

1. Pomel, V., Klicic, J., Covini, D., *et al*. Furan-2-ylmethylene thiazolidinediones as novel, potent, and selective inhibitors of phosphoinositide 3-kinase γ. *J. Med. Chem.* **49**, 3857-3871 (2006).

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