

Certificate of Analysis

Catalog Number	BP13948
Product Name	Ruboxistaurin hydrochloride

Physical and Chemical Properties

Synonyms	LY333531 HCl, LY 333531 hydrochloride, Ruboxistaurin
CAS No.	169939-93-9
Chemical Formula	C28H29ClN4O3
Molecular Weight	505.02
Solubility	DMSO: 10.1 mg/mL (20 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	Isozyme-selective inhibitor of protein kinase C (PKC); competitively and reversibly inhibits PKC β I and PKC β II (IC50 values are 4.7 and 5.9 nM respectively). Selective for PKC β over other PKC isozymes (IC50values are 0.052, 0.25, 0.30, 0.36, 0.60 and >100 μ M for PKC η , - δ , - γ , - α , - ϵ and - ζ respectively). Exhibits selectivity for PKC over other ATP-dependent kinases, including protein kinase A, casein kinase and src).
Targets&IC50	PKCη:0.052 μM, PKCβ2:5.9 nM, PKCδ:0.25 μM, PKCγ:0.3 μM, PKCβ1:4.7 nM
In vitro	LY333531 strikingly decreases the chance of HUVEC survival and the effect of LY333531 on apoptotic cell death in HUVEC significantly increases compared with the AGEs group. Blockade of PKC-beta up-regulates the expression of Bax and Bad proteins and down-regulates the expression of Bcl-2 protein. Moreover, LY333531 reduces the ratio of Bcl-2/Bax. LY333531 can further prompt AGEs-induced endothelial cells apoptosis. The increased expression of Bax, Bad and decreased expression of Bcl-2 and Bcl-2/Bax ratio are associated with the apoptotic process.
In vivo	A significant up-regulation of TGF-b1, Smad2 and Smad3 mRNA expression was observed in diabetic rats, which was alleviated by administration of ruboxistaurin.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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