

PRODUCT INFORMATION



VU0359595

Item No. 10955

CAS Registry No.:

Formal Name: (1R,2R)-N-[(1S)-2-[4-(5-bromo-2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)-1-piperidinyl]-1-methylethyl]-2-phenyl-cyclopropanecarboxamide; (1S,2S)-N-[(1S)-2-[4-(5-bromo-2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)-1-piperidinyl]-1-methylethyl]-2-phenyl-cyclopropanecarboxamide

Synonyms:

MF: C₂₅H₂₉BrN₄O₂

FW: 497.4

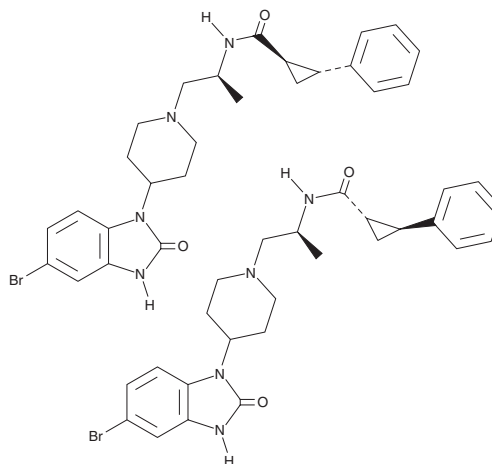
Purity: ≥95% (mixture of diastereomers)

UV/Vis.: λ_{max}: 293 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

VU0359595 is supplied as a crystalline solid. A stock solution may be made by dissolving the VU0359595 in the solvent of choice, which should be purged with an inert gas. VU0359595 is soluble in the organic solvent DMSO at a concentration of approximately 5 mg/ml.

Description

Phospholipase D (PLD) is an enzyme that cleaves the head group from phospholipids, producing the second messenger phosphatidic acid. Two mammalian isoforms of PLD, PLD₁ and PLD₂, have been identified, with multiple splice variants of each. Although the two isoforms share structural and functional features, they are regulated differently and apparently subserve distinct roles. VU0359595 is an inhibitor of PLD₁ (IC₅₀ = 3.7 nM) that is >1,700-fold selective over PLD₂ (IC₅₀ = 6.4 μM).¹ Preliminary evidence suggests that VU0359595 does not interact with the catalytic site of PLD, but instead may bind and inhibit PLD through an allosteric site.¹

Reference

1. Lewis, J.A., Scott, S.A., Lavieri, R., et al. Design and synthesis of isoform-selective phospholipase D (PLD) inhibitors. Part I: Impact of alternative halogenated privileged structures for PLD₁ specificity. *Bioorg. Med. Chem. Lett.* **19**(7), 1916-1920 (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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