

PRODUCT INFORMATION



GDC-0068

Item No. 18412

CAS Registry No.: 1001264-89-6
Formal Name: (2S)-(4-chlorophenyl)-1-[4-[(5R,7R)-6,7-dihydro-7-hydroxy-5-methyl-5H-cyclopentapyrimidin-4-yl]-1-piperazinyl]-3-[(1-methylethyl)amino]-1-propanone

Synonyms: Ipatasertib, RG-7440

MF: C₂₄H₃₂ClN₅O₂

FW: 458.0

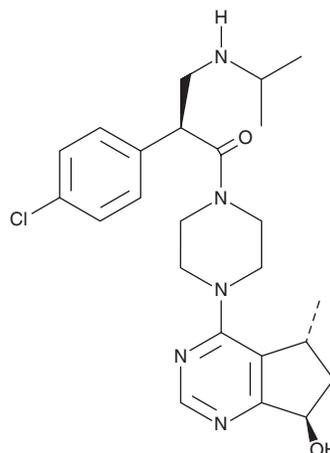
Purity: ≥98%

UV/Vis.: λ_{max}: 258 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

GDC-0068 is supplied as a crystalline solid. A stock solution may be made by dissolving the GDC-0068 in the solvent of choice, which should be purged with an inert gas. GDC-0068 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of GDC-0068 in these solvents is approximately 20, 15, and 25 mg/ml, respectively.

GDC-0068 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, GDC-0068 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. GDC-0068 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

GDC-0068 is a selective, ATP-competitive, pan-Akt inhibitor that targets Akt1, 2, and 3 with IC₅₀ values of 5, 18, and 8 nM, respectively in cell-free assays.¹ It is 620-fold selective for Akt over protein kinase A and has been shown to block Akt signaling selectively in cultured tumor cell lines characterized by activated Akt, halting cell cycle progression and reducing cell viability.¹ In multiple tumor xenograft models, oral administration of GDC-0068 at 100 mg/kg/day can lead to delayed tumor growth and regression.¹

Reference

1. Lin, J., Sampath, D., Nannini, M.A., *et al.* Targeting activated Akt with GDC-0068, a novel selective Akt inhibitor that is efficacious in multiple tumor models. *Clin. Cancer Res.* **19**(7), 1760-1772 (2016).

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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