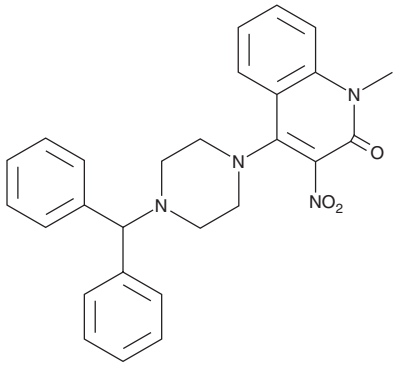
PRODUCT INFORMATION

BMS 684

Item No. 46736



CAS Registry No.:	313552-29-3
Formal Name:	4-[4-(diphenylmethyl)-1-piperazinyl]-1-methyl-3-2(1H)-quinolinone
MF:	$C_{27}H_{26}N_4O_3$
FW:	454.5
Purity:	≥98%
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

BMS 684 is supplied as a solid. A stock solution may be made by dissolving the BMS 684 in the solvent of choice, which should be purged with an inert gas. BMS 684 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

BMS 684 is an inhibitor of diacylglycerol kinase α (DGK-α; IC_{50} = 0.0046 µM).[1] It is selective for DGK-α over DGK-β, -γ, -κ, and -ζ (IC_{50}s = 2.5, 1.9, >10, and >10 µM, respectively), a panel of 327 other kinases at 15 µM, and a panel of 42 receptors, ion channels, and enzymes at 30 µM. BMS 684 induces translocation of DGK-α to the plasma membrane in Jurkat cells (EC_{50} = 0.52 µM) and increases T cell receptor-mediated IL-2 levels in programmed cell death protein 1-positive (PD-1^+) and PD-1^- primary human $CD4^+$ T cells.[1,2]

References

1. Chupak, L., Wichroski, M., Zheng, X., *et al*. Discovery of potent, dual-inhibitors of diacylglycerol kinases alpha and zeta guided by phenotypic optimization. *ACS Med. Chem. Lett*. **14(7)**, 929-935 (2023).
2. Wichroski, M., Benci, J., Liu, S.Q., *et al*. DGKα/ζ inhibitors combine with PD-1 checkpoint therapy to promote T cell-mediated antitumor immunity. *Sci. Transl. Med*. **15(719)**, (2023).

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.

WARRANTY AND LIMITATION OF REMEDY
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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM