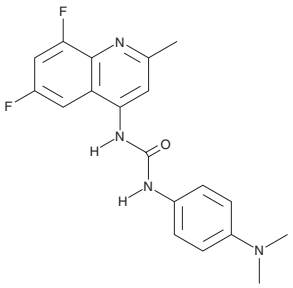
PRODUCT INFORMATION

SB-408124

Item No. 22961

CAS Registry No.:	288150-92-5
Formal Name:	N-(6,8-difluoro-2-methyl-4-quinolinyl)-N'-[4-(dimethylamino)phenyl]-urea
MF:	$C_{19}H_{18}F_2N_4O$
FW:	356.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 227, 265, 315 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

SB-408124 is supplied as a crystalline solid. A stock solution may be made by dissolving the SB-408124 in the solvent of choice, which should be purged with an inert gas. SB-408124 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SB-408124 in these solvents is approximately 0.5, 20, and 30 mg/ml, respectively.

SB-408124 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SB-408124 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SB-408124 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SB-408124 is a potent antagonist of orexin 1 receptors (OX1Rs) with a K_i value of 26.9 nM in a calcium mobilization assay using CHO cells that stably express human OX1R.[1] It is selective for OX1R over OX2R, with K_d values of 21.7 and 1,704 nM, respectively, in a radioligand binding assay. *In vivo* co-perfusion of SB-408124 with human OX1R in the rat ventral tegmental area inhibits OX1R-induced glutamate and dopamine elevations and reduces cocaine-seeking behavior in rats.[2]

References

1. Langmead, C.J., Jerman, J.C., Brough, S.J., *et al*. Characterisation of the binding of 3H-SB-674042, a novel nonpeptide antagonist, to the human orexin-1 receptor. *Br. J. Pharmacol.* **141(2)**, 340-346 (2004).
2. Wang, B., You, Z.B., and Wise, R.A. Reinstatement of cocaine seeking by hypocretin (orexin) in the ventral tegmental area: Independence from the local corticotropin-releasing factor network. *Biol. Psychiatry* **65(10)**, 857-862 (2009).

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