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_{2}N_{4}O
FW: 356.4
Purity: ≥98%
UV/Vis.: λ_{max}: 227, 265, 315 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

SB-408124 is supplied as a crystalline solid. A stock solution may be made by dissolving the SB-408124 in the solvent of choice. SB-408124 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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_{i} 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