NSC 23766 (hydrochloride)

Item No. 13196

CAS Registry No.: 1177865-17-6

Formal Name: N6-[2-[[4-(diethylamino)-1-methylbutyl]amino]-6-methyl-4-pyrimidinyl]-2-methyl-4,6-quinolinediamine, trihydrochloride

MF: C₂₄H₃₅N₇ • 3HCl

FW: 531.0

Purity: ≥98%

Stability: ≥2 years at -20°C

Supplied as: A crystalline solid

UV/Vis: λ_max: 219, 288, 324 nm

Laboratory Procedures

For long term storage, we suggest that NSC 23766 (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

NSC 23766 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the NSC 23766 (hydrochloride) in the solvent of choice. NSC 23766 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of NSC 23766 (hydrochloride) in these solvents is approximately 3, 20, and 2 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of NSC 23766 (hydrochloride) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of NSC 23766 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Rac1 is a GTPase that is involved in the regulation of the cell cycle, cell-cell adhesion, motility, and differentiation. Rac1 is activated by its interaction with specific guanine nucleotide exchange factors (GEFs). NSC 23766 is a cell-permeable, reversible inhibitor of Rac1 activation by the Rac-specific GEFs TrioN and Tiam 1 (IC₅₀ = 50 μM). It has no effect on the closely related GTPases, Cdc42, and RhoA. NSC 23766 has been used to investigate the role of Rac1 in such diverse cellular functions as stem cell mobilization, epithelial cell migration, angiogenesis, leukemia cell migration and growth, and gene expression.

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13196