GNF-2
Item No. 16253

CAS Registry No.: 778270-11-4
Formal Name: 3-[6-[[4-(trifluoromethoxy)phenyl]amino]-4-pyrimidinyl]-benzamide
Synonym: Bcr-Abl Inhibitor
MF: C_{18}H_{13}F_{3}N_{4}O_{2}
FW: 374.3
Purity: ≥98%
UV/Vis.: λ_{max}: 268 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

GNF-2 is supplied as a crystalline solid. A stock solution may be made by dissolving the GNF-2 in the solvent of choice, which should be purged with an inert gas. GNF-2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of GNF-2 in these solvents is approximately 0.25, 10, and 25 mg/ml, respectively.

GNF-2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, GNF-2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. GNF-2 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

GNF-2 is an allosteric inhibitor of Bcr-Abl (IC_{50} = 267 nM).\(^1\) It is selective for Bcr-Abl over c-Abl and a panel of 63 additional kinases at 10 µM. It inhibits proliferation of Ba/F3 cells (IC_{50} = 138 nM). GNF-2 (10 µM) reduces viral titers in Vero cells infected with infectious bronchitis virus (IBV), a coronavirus, via inhibition of IBV surface glycoprotein-induced syncytia formation and virus-cell fusion.\(^2\) It inhibits LPS-induced production of nitric oxide (NO) and TNF-α in BV-2 microglia when used at concentrations of 10 and 20 µM.\(^3\) GNF-2 (1 and 10 mg/kg) reduces paw edema and increases the latency to paw withdrawal in a mouse model of inflammatory pain induced by complete Freund’s adjuvant (CFA). It also decreases mechanical and thermal hyperalgesia in a mouse model of diabetic neuropathy induced by streptozotocin (STZ; Item No. 13104).

References