

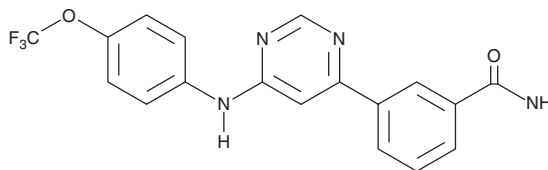
PRODUCT INFORMATION



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: C₁₈H₁₃F₃N₄O₂
FW: 374.3
Purity: ≥98%
UV/Vis.: λ_{max}: 268 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

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 (IC₅₀ = 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 (IC₅₀ = 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

1. Adrián, F.J., Ding, Q., Sim, T., *et al.* Allosteric inhibitors of Bcr-abl-dependent cell proliferation. *Nat. Chem. Biol.* **2**(2), 95-102 (2006).
2. Sisk, J.M., Frieman, M.B., and Machamer, C.E. Coronavirus S protein-induced fusion is blocked prior to hemifusion by Abl kinase inhibitors. *J. Gen. Virol.* **99**(5), 619-630 (2018).
3. Song, G.J., Rahman, M.H., Jha, M.K., *et al.* A Bcr-Abl inhibitor GNF-2 attenuates inflammatory activation of glia and chronic pain. *Front. Pharmacol.* **10**, 543 (2019).

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.

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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