

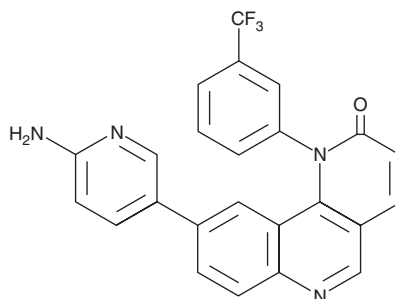
PRODUCT INFORMATION



Torin 2

Item No. 14185

CAS Registry No.: 1223001-51-1
Formal Name: 9-(6-amino-3-pyridinyl)-1-[3-(trifluoromethyl)phenyl]-benzo[h]-1,6-naphthyridin-2(1H)-one
MF: C₂₄H₁₅F₃N₄O
FW: 432.4
Purity: ≥98%
UV/Vis.: λ_{max}: 263, 314 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

Torin 2 is supplied as a crystalline solid. A stock solution may be made by dissolving the torin 2 in the solvent of choice, which should be purged with an inert gas. Torin 2 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of torin 2 in these solvents is approximately 5 and 10 mg/ml, respectively.

Torin 2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, torin 2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Torin 2 has a solubility of approximately 0.09 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Torin 2 is a potent and selective inhibitor of cellular mTOR activity (EC₅₀ = 0.3 nM).¹ It shows more than 800-fold selectivity for mTOR over PI3K (EC₅₀ = 200 nM) and greater than 100-fold binding selectivity relative to 440 other protein kinases.¹ Torin 2 has significantly improved bioavailability (54%), metabolic stability, and plasma exposure compared to torin 1 (Item No. 10997).^{1,2}

References

1. Liu, Q., Wang, J., Kang, S.A., *et al.* Discovery of 9-(6-aminopyridin-3-yl)-1-(3-(trifluoromethyl)phenyl)benzo[h][1,6]naphthyridin-2(1H)-one (Torin2) as a potent, selective and orally available mTOR inhibitor for treatment of cancer. *J. Med. Chem.* **54(5)**, 1473-1480 (2011).
2. Thoreen, C.C., Kang, S.A., Chang, J.W., *et al.* An ATP-competitive mammalian target of rapamycin inhibitor reveals rapamycin-resistant functions of mTORC1. *J. Biol. Chem.* **284(12)**, 8023-8032 (2009).

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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