

# PRODUCT INFORMATION

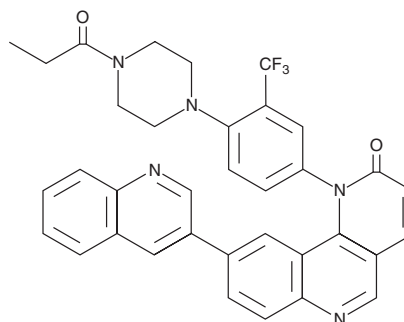


## Torin 1

Item No. 10997

**CAS Registry No.:** 1222998-36-8  
**Formal Name:** 1-[4-[4-(1-oxopropyl)-1-piperazinyl]-3-(trifluoromethyl)phenyl]-9-(3-quinolinyl)-benzo[h]-1,6-naphthyridin-2(1H)-one

**MF:** C<sub>35</sub>H<sub>28</sub>F<sub>3</sub>N<sub>5</sub>O<sub>2</sub>  
**FW:** 607.6  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 204, 256, 286 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.

### Description

Torin 1 is a potent and selective inhibitor of mTOR (IC<sub>50</sub> = 2 and 10 nM for mTORC1 and mTORC2, respectively).<sup>1,2</sup> It shows over 100-fold selectivity for mTOR over PI3Kα and other PI3K-like kinases, including ATM, DNA-PK, and hVps34, as well as 450 other protein kinases.<sup>1,2</sup> Torin 1, is efficacious at a dose of 20 mg/kg in inhibiting downstream effectors of mTOR in mice.<sup>2</sup>

### References

1. Liu, Q., Chang, W., Wang, J., *et al.* Discovery of 1-(4-(4-propionylpiperazin-1-yl)-3-(trifluoromethyl)phenyl)-9-(quinolin-3-yl)benzo[h][1,6]naphthyridin-2(1H)-one as a highly potent, selective mammalian target of rapamycin (mTOR) inhibitor for the treatment of cancer. *J. Med. Chem* **53**(19), 7146-7155 (2010).
2. Thoreen, C.C. and Kang, S.A. 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/28/2022

#### 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