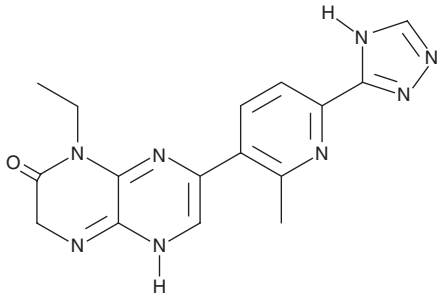
PRODUCT INFORMATION

CC-115

Item No. 19420

CAS Registry No.:	1228013-15-7
Formal Name:	1-ethyl-3,4-dihydro-7-[2-methyl-6-(1H-1,2,4-triazol-5-yl)-3-pyridinyl]-pyrazino[2,3-b]pyrazin-2(1H)-one
MF:	$C_{16}H_{16}N_8O$
FW:	336.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 254, 349 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

CC-115 is supplied as a crystalline solid. A stock solution may be made by dissolving the CC-115 in the solvent of choice, which should be purged with an inert gas. CC-115 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CC-115 in these solvents is approximately 10 mg/ml.

CC-115 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CC-115 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CC-115 has a solubility of approximately 0.01 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CC-115 is a dual inhibitor of mammalian target of rapamycin (mTOR) and DNA protein kinase (DNA-PK; IC_{50}s = 0.021 and 0.013 µM, respectively).[1,2] It is selective for mTOR and DNA-PK over PI3Kα, ATM, and ATR (IC_{50}s = 0.85, >30, and >30 µM, respectively). CC-115 inhibits growth in a panel of 123 cancer cell lines, including breast, head and neck, and lung cancer cells (GI_{50}s = 0.015-1.77 µM), and non-homologous end joining (NHEJ) in CAL-51 and MDA-MB-231 breast, PC3 prostate, and HCT116 colon cancer cells (IC_{50}s = 3.15, 2.16, 2.72, and 6.35 µM, respectively).[2] It reduces tumor growth in a PC3 prostate cancer mouse xenograft model when administered at doses of 0.25, 0.5, and 1 mg/kg twice per day.[1]

References

1. Mortensen, D.S., Perrin-Ninkovic, S.M., Shevlin, G., *et al.* Optimization of a series of triazole containing mammalian target of rapamycin (mTOR) kinase inhibitors and the discovery of CC-115. *J. Med. Chem.* **58(14)**, 5599-5608 (2015).
2. Tsuji, T., Sapinoso, L.M., Tran, T., *et al.* CC-115, a dual inhibitor of mTOR kinase and DNA-PK, blocks DNA damage repair pathways and selectively inhibits ATM-deficient cell growth *in vitro*. *Oncotarget* **8(43)**, 74688-74702 (2017).

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