

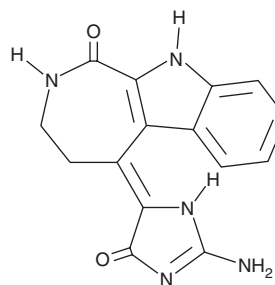
PRODUCT INFORMATION



Chk2 Inhibitor

Item No. 21184

CAS Registry No.: 724708-21-8
Formal Name: (5Z)-5-(2-amino-1,5-dihydro-5-oxo-4H-imidazol-4-ylidene)-3,4,5,10-tetrahydro-azepino[3,4-b]indol-1(2H)-one
Synonym: SC-203885
MF: C₁₅H₁₃N₅O₂
FW: 295.3
Purity: ≥95%
UV/Vis.: λ_{max}: 236, 297, 355 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

Chk2 inhibitor is supplied as a crystalline solid. A stock solution may be made by dissolving the Chk2 inhibitor in the solvent of choice, which should be purged with an inert gas. Chk2 inhibitor is soluble in the organic solvent DMSO.

Description

Chk2 inhibitor is an inhibitor of checkpoint kinase 2 (Chk2; IC₅₀ = 13.5 nM).¹ It is selective for Chk2 over Chk1 (IC₅₀ = 220.4 nM). It inhibits Chk2 autophosphorylation at the serine in position 516 in non-cancerous 184B5 cells that contain wild-type p53 and in MDA-MB-231 cells that contain mutated p53 when used at concentrations ranging from 0.1 to 30 μM. Chk2 inhibitor enhances survival of 184B5, but not MDA-MB-231, cells following ionizing radiation and inhibits cell cycle arrest at the G₂ stage induced by ionizing radiation in 184B5 cells. It also inhibits the production of IL-2 in Jurkat cells stimulated by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) and the production of TNF-α in LPS-stimulated THP-1 cells (IC₅₀s = 3.5 and 8.2 μM, respectively).² Chk2 inhibitor also inhibits the growth of CEM leukemia T cells (GI₅₀ = 1.73 μM).

References

1. Nguyen, T.N.T., Saleem, R.S.Z., Luderer, M.J., *et al.* Radioprotection by hymenialdisine-derived checkpoint kinase 2 inhibitors. *ACS Chem. Biol.* **7**(1), 172-184 (2012).
2. Sharma, V., Lansdell, T.A., Jin, G., *et al.* Inhibition of cytokine production by hymenialdisine derivatives. *J. Med. Chem.* **47**(14), 3700-3703 (2004).

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, 10/04/2022

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