

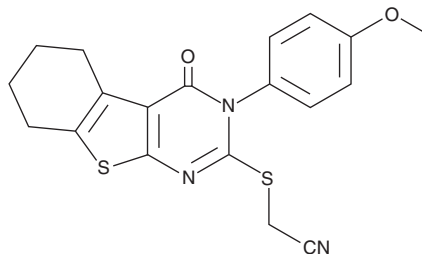
PRODUCT INFORMATION



Necrostatin-5

Item No. 10527

CAS Registry No.: 337349-54-9
Formal Name: 2-[[3,4,5,6,7,8-hexahydro-3-(4-methoxyphenyl)-4-oxo[1]benzothieno[2,3-d]pyrimidin-2-yl]thio]-acetonitrile



Synonym: Nec-5
MF: C₁₉H₁₇N₃O₂S₂
FW: 383.5
Purity: ≥98%
UV/Vis.: λ_{max}: 229, 324 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

Necrostatin-5 is supplied as a crystalline solid. A stock solution may be made by dissolving the necrostatin-5 in the solvent of choice, which should be purged with an inert gas. Necrostatin-5 is soluble in chloroform at a concentration of approximately 10 mg/ml. Necrostatin-5 is slightly soluble in DMSO and dimethyl formamide.

Description

Necrostatin-5 is a RIP1 kinase inhibitor.¹ It inhibits phosphorylation of RIP1 in Jurkat cells when used at concentrations of 10 and 30 μM. Necrostatin-5 inhibits TNF-α-induced necroptosis in Jurkat cells deficient in Fas-associated death domain protein (FADD; EC₅₀ = 0.24 μM), a modification that prevents caspase activation in response to death-domain receptor signaling. It reduces lactate dehydrogenase (LDH) release in *S. marcescens*-infected MH-S macrophages in a concentration-dependent manner.² Necrostatin-5 (100 μM, i.p.) improves survival in a mouse model of *S. marcescens*-induced pneumonia.

References

1. Degtrev, A., Hitomi, J., Germscheid, M., *et al.* Identification of RIP1 kinase as a specific cellular target of necrostatins. *Nat. Chem. Biol.* **4**(5), 313-321 (2008).
2. González-Juarbe, N., Gilley, R.P., Hinojosa, C.A., *et al.* Pore-forming toxins induce macrophage necroptosis during acute bacterial pneumonia. *PLoS Pathog.* **11**(12), e1005337 (2015).

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, 02/06/2023

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