

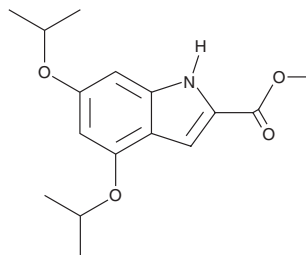
PRODUCT INFORMATION



XST-14

Item No. 43722

CAS Registry No.: 2607143-50-8
Formal Name: 4,6-bis(1-methylethoxy)-H-indole-2-carboxylic acid, methyl ester
MF: $C_{16}H_{21}NO_4$
FW: 291.3
Purity: $\geq 98\%$
Supplied as: A 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

XST-14 is supplied as a solid. A stock solution may be made by dissolving the XST-14 in the solvent of choice, which should be purged with an inert gas. XST-14 is soluble (≥ 10 mg/ml) in ethanol and DMSO.

Description

XST-14 is an inhibitor of unc-51-like autophagy activating kinase 1 (ULK1; $IC_{50} = 13.6$ nM).¹ It is selective for ULK1 over anaplastic lymphoma kinase 2 (ALK2), p38 α MAPK, TGF- β receptor type 2 (TGFB2), and MEK1 (IC_{50} s = 183.8, 283.9, 809.3, and 721.8 nM, respectively) but does inhibit calcium/calmodulin-dependent kinase II (CaMKII) and ULK2 (IC_{50} s = 66.3 and 70.9 nM, respectively). XST-14 (5 μ M) induces apoptosis and autophagy and decreases invasion in HepG2 hepatocellular carcinoma cells. *In vivo*, XST-14, alone and in combination with sorafenib (Item Nos. 10009644 | 35612), decreases tumor volume in a HepG2 mouse xenograft model.

Reference

1. Xue, S.-T., Li, K., Gao, Y., *et al.* The role of the key autophagy kinase ULK1 in hepatocellular carcinoma and its validation as a treatment target. *Autophagy* **16**(10), 1823-1837 (2020).

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

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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