

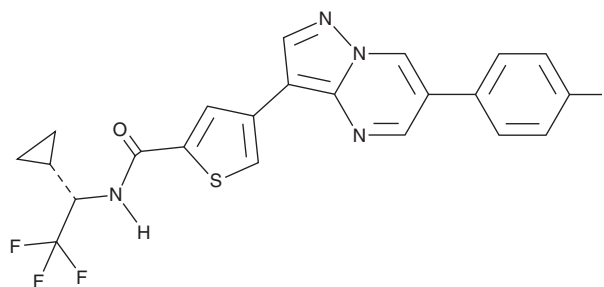
PRODUCT INFORMATION



ULK-101

Item No. 40403

CAS Registry No.: 2443816-45-1
Formal Name: N-[(1S)-1-cyclopropyl-2,2,2-trifluoroethyl]-4-[6-(4-fluorophenyl)pyrazolo[1,5-a]pyrimidin-3-yl]-2-thiophenecarboxamide
MF: C₂₂H₁₆F₄N₄OS
FW: 460.4
Purity: ≥95%
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

ULK-101 is supplied as a solid. A stock solution may be made by dissolving the ULK-101 in the solvent of choice, which should be purged with an inert gas. ULK-101 is soluble in acetonitrile and DMSO.

Description

ULK-101 is an inhibitor of unc-51-like autophagy activating kinase 1 (ULK1) and ULK2 (IC₅₀s = 8.3 and 30 nM, respectively).¹ It is selective for ULK1 and ULK2 over a panel of 325 additional kinases at 10 μM but does inhibit serine/threonine kinase 17a (STK17A), also known as DRAK1, and MAP kinase-interacting serine/threonine protein kinase 2 (MNK2) (IC₅₀s = 14 and 22 nM, respectively). ULK-101 inhibits nutrient starvation-induced phosphorylation of Beclin 1 in HEK293T cells (EC₅₀ = 390 nM). It inhibits the formation of omegasomes positive for zinc finger FYVE-type containing 1 (ZFYVE1), also known as DFCP1, a marker of autophagy induction, in U2OS cells when used at a concentration of 5 μM. ULK-101 (1 and 2 μM) reduces the viability of nutrient-restricted H838, H727, H2030, and A549 lung cancer cells.

Reference

1. Martin, K.R., Celano, S.L., Solitro, A.R., *et al.* A potent and selective ULK1 inhibitor suppresses autophagy and sensitizes cancer cells to nutrient stress. *iScience* **8**, 74-84 (2018).

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.

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