

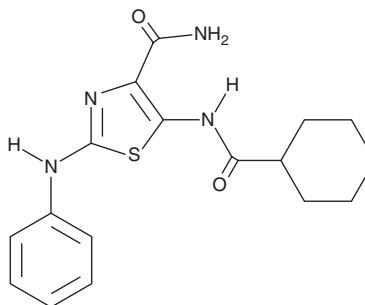
PRODUCT INFORMATION



UNC3230

Item No. 16401

CAS Registry No.: 1031602-63-7
Formal Name: 5-[(cyclohexylcarbonyl)amino]-2-(phenylamino)-4-thiazolecarboxamide
MF: C₁₇H₂₀N₄O₂S
FW: 344.4
Purity: ≥95%
UV/Vis.: λ_{max}: 287, 336 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

UNC3230 is supplied as a crystalline solid. A stock solution may be made by dissolving the UNC3230 in the solvent of choice. UNC3230 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of UNC3230 in ethanol is approximately 0.2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

UNC3230 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Phosphatidylinositol-4-phosphate 5-kinase type-1 γ (PIP5K1C) is a lipid kinase that generates phosphatidylinositol-4,5-bisphosphate (PIP₂) in nociceptive dorsal root ganglia (DRG).¹ Pain sensitization is regulated by multiple signaling pathways that are initiated by phospholipase C-mediated hydrolysis of PIP₂.¹ UNC3230 is a small molecule inhibitor of PIP5K1C (IC₅₀ = 41 nM, K_d = 51 nM).¹ It does not inhibit any other lipid kinases that regulate phosphoinositide levels, including phosphatidylinositol 3-kinases.¹ At 100 nM, UNC3230 decreases PIP₂ membrane levels in cultured DRG neurons by 45% and significantly reduces calcium signaling. At 2 nM, it displays antinociceptive effects in mouse models of chronic pain when administered intrathecally or injected into inflamed hindpaw.¹

Reference

1. Wright, B.D., Loo, L., Street, S.E., *et al.* The lipid kinase PIP5K1C regulates pain signaling and sensitization. *Neuron* **82**(4), 836-847 (2014).

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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