

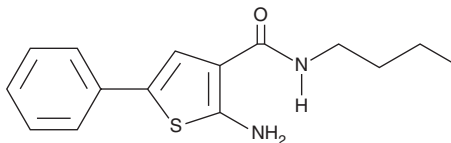
PRODUCT INFORMATION



ThioLox

Item No. 38946

CAS Registry No.: 1202193-89-2
Formal Name: 2-amino-N-butyl-5-phenyl-3-thiophenecarboxamide
MF: C₁₅H₁₈N₂OS
FW: 274.4
Purity: ≥98%
UV/Vis.: λ_{max}: 232, 330 nm
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

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

Description

ThioLox is an inhibitor of 15-lipoxygenase 1 (15-LO-1; K_i = 3.3 μM).¹ It also is an inhibitor of *P. falciparum* aspartate carbamoyltransferase (IC₅₀ = 3.32 μM).² ThioLox (50 μM) reduces LPS-induced expression of the mRNAs encoding TNF-α, inducible nitric oxide synthase (iNos), Il-1β, Il-6, Il-8, and Il-12b in mouse lung slices.¹ It inhibits increases in lipid peroxidation and mitochondrial superoxide formation, as well as cell death, induced by the excitatory neurotransmitter glutamate (L-glutamic acid; Item No. 30377) in mouse HT22 hippocampal cells when used at a concentration of 10 μM.

References

1. Eleftheriadis, N., Poelman, H., Leus, N.G.J., *et al.* Design of a novel thiophene inhibitor of 15-lipoxygenase-1 with both anti-inflammatory and neuroprotective properties. *Eur. J. Med. Chem.* **122**, 786-801 (2016).
2. Wang, C., Zhang, B., Krüger, A., *et al.* Discovery of small-molecule allosteric inhibitors of PfATC as antimalarials. *J. Am. Chem. Soc.* **144(41)**, 19070-19077 (2022).

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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