PRODUCT INFORMATION



ML-090

Item No. 15172

CAS Registry No.:	531-46-4	
Formal Name:	5,12-dihydro-quinoxalino[2,3-b]	
	quinoxaline	Н
Synonyms:	CCG-44699, CID-616479, Fluoflavin,	Ĩ
	NSC 179821	
MF:	$C_{14}H_{10}N_{4}$	
FW:	234.3	
Purity:	≥95%	
UV/Vis.:	λ _{max} : 248, 324, 341, 393, 415, 442 nm	l H
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
Information represents	s the product specifications. Batch specific analytica	nl results are provided on each certificate of analysis.

Laboratory Procedures

ML-090 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-090 in the solvent of choice, which should be purged with an inert gas. ML-090 is slightly soluble in ethanol, DMSO, dimethyl formamide, and acetonitrile.

Description

NADPH oxidase 1 (NOX1) generates reactive oxygen species (ROS) in colon epithelial cells that interacts with both pathogenic and normal bacteria. Excess ROS production, however, is associated with damage to the intestinal mucosa, inflammatory bowel disease, and prostate cancer.¹ ML-090 is the first identified NOX1-specific inhibitor (IC₅₀ = 360 nM in HEK293 cells) based on a quinoxaline scaffold that demonstrates potent selectivity over NOX2, NOX3, and NOX4 (IC₅₀s \geq 10 μ M) and xanthine oxidase (IC₅₀ = 3.5 µM).¹

Reference

1. Brown, S.J., Gianni, D., Bokoch, G., et al. Probe report for NOX1 inhibitors. Probe Reports from the NIH Molecular Libraries Program (2010).

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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