

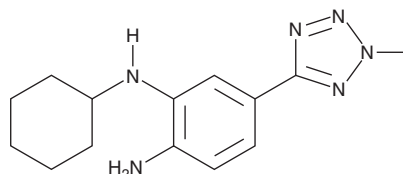
PRODUCT INFORMATION



Ferroptosis Inhibitor D1

Item No. 41822

Formal Name: N¹-cyclohexyl-5-(2-methyl-2H-tetrazol-5-yl)benzene-1,2-diamine
MF: C₁₄H₂₀N₆
FW: 272.4
Purity: ≥98%
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

Ferroptosis inhibitor D1 is supplied as a crystalline solid. A stock solution may be made by dissolving the ferroptosis inhibitor D1 in the solvent of choice, which should be purged with an inert gas. Ferroptosis inhibitor D1 is soluble (≥10 mg/ml) in DMSO.

Description

Ferroptosis inhibitor D1 is a free radical scavenger and an inhibitor of ferroptosis.¹ It scavenges 41.27% of DPPH (Item No. 14805) radicals in a cell-free assay when used at a concentration of 0.4 μM. Ferroptosis inhibitor D1 (0.5 μM) inhibits lipid peroxidation induced by the ferroptosis inducer erastin (Item No. 17754) in HT-1080 cells and inhibits erastin-induced ferroptosis in the same cells (IC₅₀ = 22 nM). *In vivo*, ferroptosis inhibitor D1 (5 mg/kg) reduces infarct volume and improves neurological deficits in a mouse model of ischemic brain injury induced by transient middle cerebral artery occlusion (MCAO).

Reference

1. Lu, Y., Shen, Z., Xu, Y., *et al.* Discovery of new phenyltetrazolium derivatives as ferroptosis inhibitors for treating ischemic stroke: An example development from free radical scavengers. *J. Med. Chem.* **67**(14), 11712-11731 (2024).

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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