

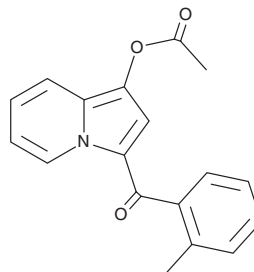
PRODUCT INFORMATION



D12

Item No. 45652

CAS Registry No.: 3126217-49-7
Formal Name: [1-(acetyloxy)-3-indoliziny] (2-methylphenyl)-methanone
Synonym: Ferroptosis-IN-24
MF: C₁₈H₁₅NO₃
FW: 293.3
Purity: ≥95%
Supplied as: A 10 mg/ml solution in ethanol
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

D12 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. D12 is slightly soluble (0.1-1 mg/ml) in chloroform.

Description

D12 is a brain-penetrant ferroptosis inhibitor.¹ It inhibits ferroptosis induced by RSL3 (Item No. 19288) in PC12 cells (EC₅₀ = 39.7 nM) by reducing oxidative stress and lipid peroxidation, thereby reducing RSL3-mediated compensatory activation of Nrf2. It also inhibits ferroptosis induced by erastin (Item No. 17754) in PC12 cells (EC₅₀ = 410 nM). Intraperitoneal administration of D12 (10 and 20 mg/kg) restores hepatic glutathione (GSH) and malondialdehyde (MDA) levels and reduces liver injury induced by acetaminophen (Item No. 10024) in a mouse model of acute liver injury. It also reduces infarct volume and neurological deficits in a rat model of cerebral ischemia-reperfusion injury when administered intravenously at 1 mg/kg.

Reference

1. Shu, Y., Jiang, Y., Xiong, Y., *et al.* Design, synthesis, and evaluation of indolizine derivatives as nonclassical ferroptosis inhibitors with efficacy in acute liver injury and ischemic stroke models. *J. Med. Chem.* **69**(7), 8051-8074 (2026).

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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