

PRODUCT INFORMATION



GPX4 24

Item No. 38428

Formal Name: methyl (1S,3R)-2-(2-chloroacetyl)-1-(4-(methylsulfonyl)phenyl)-2,3,4,9-tetrahydro-1H-pyrido[3,4-b]indole-3-carboxylate

Synonyms: Glutathione Peroxidase 4 24, PHGPx 24, Phospholipid Hydroperoxide Glutathione Peroxidase 24

MF: C₂₂H₂₁ClN₂O₅S

FW: 460.9

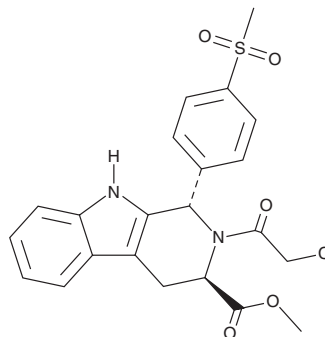
Purity: ≥98%

UV/Vis.: λ_{max}: 222 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥3 years



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

Laboratory Procedures

GPX4 24 is supplied as a solid. A stock solution may be made by dissolving the GPX4 24 in the solvent of choice, which should be purged with an inert gas. GPX4 24 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of GPX4 24 in DMSO and DMF is approximately 30 mg/ml and approximately 20 mg/ml in ethanol.

Description

GPX4 24 is an inhibitor of glutathione peroxidase 4 (GPX4) and a derivative of (1S,3R)-RSL3 (Item No. 19288).¹ It covalently binds to GPX4 in 4T1 murine mammary carcinoma cells in a concentration-dependent manner. GPX4 24 induces ferroptosis in GPX4-dependent HT-1080 fibrosarcoma cells (EC₅₀ = 0.16 μM). It increases kidney and plasma malondialdehyde (MDA) levels in mice when administered at a dose of 200 mg/kg.

Reference

1. Randolph, J.T., O'Connor, M.J., Han, F., *et al.* Discovery of a potent chloroacetamide GPX4 inhibitor with bioavailability to enable target engagement in mice, a potential tool compound for inducing ferroptosis *in vivo*. *J. Med. Chem.* **66**(6), 3852-3865 (2023).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM