

PRODUCT INFORMATION



GPX4 Activator 2

Item No. 43195

CAS Registry No.: 950365-31-8

Formal Name: N-(2,4-dimethoxyphenyl)-1-[5-(4-methyl-1-piperazinyl)-1,3,4-thiadiazol-2-yl]-1H-pyrrole-2-methanamine

MF: $C_{20}H_{26}N_6O_2S$

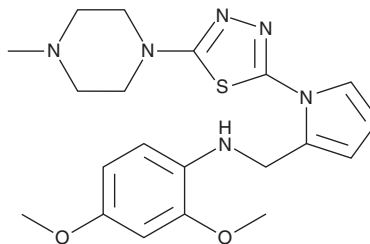
FW: 414.5

Purity: $\geq 98\%$

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

GPX4 activator 2 is supplied as a solid. A stock solution may be made by dissolving the GPX4 activator 2 in the solvent of choice, which should be purged with an inert gas. GPX4 activator 2 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

Description

GPX4 activator 2 is a ligand for glutathione peroxidase 4 (GPX4; $K_d = 0.426 \mu\text{M}$).¹ It inhibits erastin-induced ferroptosis in HT-1080 fibrosarcoma cells ($\text{EC}_{50} = 7.8 \mu\text{M}$). GPX4 activator 2 (10 μM) prevents erastin-induced increases in lipid peroxide levels in HT-1080 cells. *In vivo*, GPX4 activator 2 (25 mg/kg) decreases serum and cardiac levels of malondialdehyde (MDA) and cardiac levels of aspartate aminotransferase (Ast) and reduces myocardial cell degeneration in a mouse model of doxorubicin-induced myocardial injury.

Reference

1. Liu, X., Guo, Y., Huang, Y., *et al.* GPX4 allosteric activators inhibit ferroptosis and exert myocardial protection in doxorubicin-induced myocardial injury mouse model. *Eur. J. Med. Chem.* **277**, 116721 (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.

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