

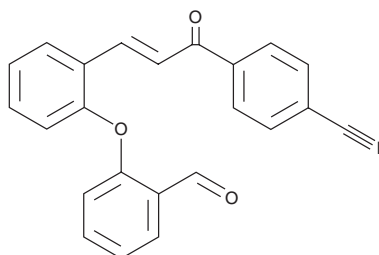
PRODUCT INFORMATION



GPX4 16

Item No. 40498

CAS Registry No.: 2644044-43-7
Formal Name: 4-[(2E)-3-[2-(2-formylphenoxy)phenyl]-1-oxo-2-propen-1-yl]-benzonitrile
Synonym: Glutathione Peroxidase 4 16
MF: C₂₃H₁₅NO₃
FW: 353.4
Purity: ≥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 16 is supplied as a solid. A stock solution may be made by dissolving the GPX4 16 in the solvent of choice, which should be purged with an inert gas. GPX4 16 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

GPX4 16 is an inhibitor of glutathione peroxidase 4 (GPX4).¹ It inhibits the proliferation of Nthy-ori-3-1 transformed human thyroid follicular epithelial cells (IC₅₀ = 8.39 μM), as well as MDA-T32 and MDA-T41 human thyroid cancer cells (IC₅₀s = 10.29 and 8.18 μM, respectively). GPX4 16 (10 μM) induces ferroptosis in MDA-T32 cells, an effect that can be prevented by the ferroptosis inhibitor ferrostatin-1 (Item No. 17729). It reduces GPX4 protein levels in MDA-T32 cells when used at a concentration of 0.3 μM. GPX4 16 also induces the production of reactive oxygen species (ROS) and reduces glutathione (GSH) levels, mitochondrial polarization, and mitochondrial respiration in MDA-T32 cells.

Reference

1. Pamorthy, D., Behera, S.K., Swain, S., *et al.* Diaryl ether derivative inhibits GPX4 expression levels to induce ferroptosis in thyroid cancer cells. *Drug Dev. Res.* **84**(5), 861-887 (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.

WARRANTY AND LIMITATION OF REMEDY

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