PRODUCT INFORMATION



GPX4 Inhibitor 17

Item No. 42006

Synonyms: Glutathione Peroxidase 4-IN-17,

Glutathione Peroxidase 4 Inhibitor 17,

GPX4-IN-17

MF: $C_{30}H_{27}CIFeN_2O_3$

FW: 554.9 **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 inhibitor 17 is supplied as a solid. A stock solution may be made by dissolving the GPX4 inhibitor 17 in the solvent of choice, which should be purged with an inert gas. GPX4 inhibitor 17 is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

Description

GPX4 inhibitor 17 is a ferrocene-containing inhibitor of glutathione peroxidase 4 (GPX4) and an inducer of ferroptosis. It inhibits GPX4 activity by 49.16% when used at a concentration of 1 μM. GPX4 inhibitor 17 (0.5 μM) increases the production of reactive oxygen species (ROS) and levels of malondialdehyde (MDA) in OS-RC-2 clear cell renal cell carcinoma cells. It induces ferroptosis in HT-1080 cells (IC_{50} S = 0.007 and 1.486 μM, in the absence and presence of ferrostatin-1, respectively). GPX4 inhibitor 17 (20 mg/kg) reduces tumor volume and intratumoral GPX4 levels in an OS-RC-2 mouse xenograft model.

Reference

1. Li, W., Yu, J., Wang, J., et al. How does ferrocene correlate with ferroptosis? Multiple approaches to explore ferrocene-appended GPX4 inhibitors as anticancer agents. Chem. Sci. 15(27), 10477-10490 (2024).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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