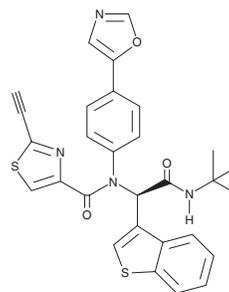


PRODUCT INFORMATION



GPX4 (R)-9i Item No. 43737

Formal Name:	(R)-N-(1-(benzo[b]thiophen-3-yl)-2-(tert-butylamino)-2-oxoethyl)-2-ethynyl-N-(4-(oxazol-5-yl)phenyl)thiazole-4-carboxamide
Synonym:	Glutathione Peroxidase 4 (R)-9i
MF:	C ₂₉ H ₂₄ N ₄ O ₃ S ₂
FW:	540.7
Purity:	≥95%
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 (R)-9i is supplied as a solid. A stock solution may be made by dissolving the GPX4 (R)-9i in the solvent of choice, which should be purged with an inert gas. GPX4 (R)-9i is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

GPX4 (R)-9i is a ferroptosis inducer.¹ It binds to GPX4 in a cellular thermal shift assay (CETSA) using HT-1080 fibrosarcoma cells ($K_d = 20.4$ nM) and inhibits GPX4 activity in a cell-free assay. It is cytotoxic to HT-1080 cells, an effect that can be reversed by the ferroptosis inhibitor ferrostatin-1 (IC_{50} s = 0.3 and 7,482 nM, respectively). The cytotoxicity of GPX4 (R)-9i to HT-1080 cells is not reversed by the addition of Z-VAD-FMK, indicating selectivity for ferroptosis over apoptosis. It is also cytotoxic to HepG2 hepatocellular carcinoma, MCF-7 breast cancer, CAL 27 oral cancer, and 4T1 murine mammary cancer cells (IC_{50} s = 56, 452, 2,682, and 89 nM, respectively). GPX4 (R)-9i (15 and 30 mg/kg) reduces tumor growth in an HT-1080 mouse xenograft model.

Reference

1. Gu, S., Yang, G., Bian, H., *et al.* Development of a highly selective ferroptosis inducer targeting GPX4 with 2-ethynylthiazole-4-carboxamide as electrophilic warhead. *J. Med. Chem.* **68**(3), 3309-3323 (2025).

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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