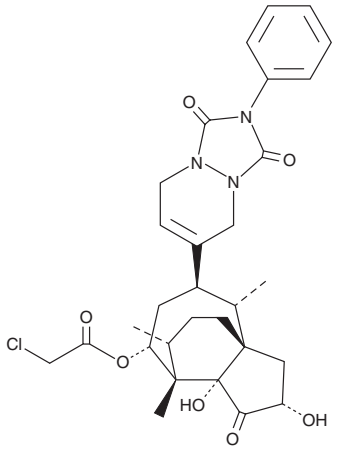
PRODUCT INFORMATION

Ferroptocide

Item No. 39005



CAS Registry No.:	2505218-38-0
Formal Name:	(2S,3aS,4S,5R,7R,8S,8aS,9R)-octahydro-2,8a-dihydroxy-4,8,9-trimethyl-1-oxo-5-(2,3,5,8-tetrahydro-1,3-dioxo-2-phenyl-1H-[1,2,4]triazolo[1,2-a]pyridazin-6-yl)-1H-3a,8-propanoazulen-7-yl ester, 2-chloro-acetic acid
MF:	$C_{30}H_{36}ClN_3O_7$
FW:	586.1
Purity:	≥90%
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

Ferroptocide is supplied as a solid. A stock solution may be made by dissolving the ferroptocide in the solvent of choice, which should be purged with an inert gas. Ferroptocide is soluble in DMSO and methanol.

Description

Ferroptocide is an inhibitor of thioredoxin (Trx) and a derivative of pleuromutilin (Item No. 19452).[1] It inhibits Trx activity in ES-2 ovarian cancer cells when used at a concentration of 20 µM and is cytotoxic to ES-2 cells (IC_{50} = 1.6 µM). Ferroptocide (5 µM) induces ferroptosis in ES-2 cells, an effect that can be blocked by the iron chelator deferoxamine (DFO; Item No. 14595), antioxidant Trolox (Item No. 10011659), or ferroptosis inhibitor ferrostatin-1 (Item No. 17729). It decreases tumor volume in a 4T1 murine mammary carcinoma model using immunocompetent but not immunodeficient mice when administered at 50 mg/kg twice per week.

Reference

1. Llabani, E., Hicklin, R.W., Lee, H.Y., *et al.* Diverse compounds from pleuromutilin lead to a thioredoxin inhibitor and inducer of ferroptosis. *Nat. Chem.* **11(6),** 521-532 (2019).

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