

## Artefenomel

## Chemical Properties

CAS No. : 1029939-86-3

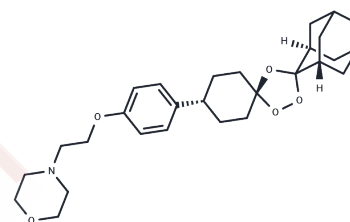
Formula: C<sub>28</sub>H<sub>39</sub>NO<sub>5</sub>

Molecular Weight: 469.61

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Artefenomel (OZ439) is an orally active anti-malarial ozone analog with antiviral activity for the study of SARS-CoV-2 infections and malaria infections.
Targets(IC50)	Ferroptosis,Parasite,SARS-CoV
In vitro	Artefenomel (10 µg/mL, 2 hours of action) is capable of alkylating Plasmodium falciparum proteins. [1] In Vero cells, Artefenomel (0.3-300 µM) dose-dependently reduced ACE2 expression and did not exhibit any cytotoxicity even at concentrations up to 300 µM. [2] In a dose-dependent manner, Artefenomel (33-100 µM) inhibited SARS-CoV-2 and completely blocked virus-induced cytopathic effects (CPE) with an IC50 of 2.9 µM. [2]
In vivo	Artefenomel (0-10 µg/mL) affects erythrocytes, leading to anemia, which causes histological alterations (e.g., cell death) and significant sarcomeric abnormalities in embryos of pregnant Crl:CD(SD)BR rats. [3]

## Solubility Information

Solubility	DMSO: 2 mg/mL (4.26 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1294 mL	10.6471 mL	21.2943 mL
5 mM	0.4259 mL	2.1294 mL	4.2589 mL
10 mM	0.2129 mL	1.0647 mL	2.1294 mL
50 mM	0.0426 mL	0.2129 mL	0.4259 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Jourdan J, et al. Monoclonal Antibodies That Recognize the Alkylation Signature of Antimalarial Ozonides OZ277 (Arterolane) and OZ439 (Artefenomel). *ACS Infect Dis.* 2016 Jan 8;2(1):54-61.

Tania Massignan, et al. Antimalarial Artefenomel Inhibits Human SARS-CoV-2 Replication in Cells while Suppressing the Receptor ACE2.

Clark RL, et al. Improved safety margin for embryotoxicity in rats for the new endoperoxide artefenomel (OZ439) as compared to artesunate. *Birth Defects Res.* 2018 Apr 17;110(7):553-578.

Phyo AP, et al. Antimalarial activity of artefenomel (OZ439), a novel synthetic antimalarial endoperoxide, in patients with *Plasmodium falciparum* and *Plasmodium vivax* malaria: an open-label phase 2 trial. *Lancet Infect Dis.* 2016 Jan;16(1):61-69.

Rosenthal PJ. Artefenomel: a promising new antimalarial drug. *Lancet Infect Dis.* 2016 Jan;16(1):6-8.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481