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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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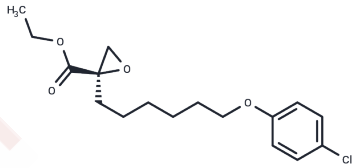
# Data Sheet (Cat.No.T4535L)

TargetMol

## Etomoxir

### Chemical Properties



CAS No. : 124083-20-1

Formula: C17H23ClO4

Molecular Weight: 326.82

Appearance: no data available

Storage: store at low temperature,keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

### Biological Description

| | |
|---|---|
| Description | Etomoxir is a carnitine palmitoyltransferase 1a (CPT-1a) inhibitor that inhibits fatty acid oxidation by inhibiting CPT-1a and inhibits palmitate oxidation in humans, rats, and guinea pigs. Etomoxir has an inhibitory effect on adenine nucleotide translocase and can inhibit macrophage polarization by disrupting CoA homeostasis. |
| Targets(IC50) | Antioxidant,CPT |
| In vitro | Etomoxir irreversibly binds to the catalytic site of CPT-1, inhibiting its activity but also upregulating fatty acid oxidase. Etomoxir was developed as an inhibitor of mitochondrial carnitine palmitoyltransferase-1 (CPT-1), which is located on the outer membrane of the mitochondria. Etomoxir, acts as a peroxisome proliferator in the liver, increasing DNA synthesis and liver growth. Therefore, in addition to being a CPT1 inhibitor, etomoclax can also be considered a PPARalpha agonist[1]. Etomoxir is a member of the ethylene oxide carboxylate carnitine palmitoyltransferase I inhibitor family and has been suggested as an inhibitor against heart failure. Acute Etomoxir treatment irreversibly inhibits carnitine palmitoyltransferase I activity. As a result, fatty acid import into mitochondria and β-oxidation are reduced, whereas cytosolic fatty acid accumulation and glucose oxidation are increased. Prolonged incubation (24 hours) with Etomoxir produces differential effects on the expression of several metabolic enzymes.[1] |
| In vivo | Rats were injected with Etomoxir, daily for 8 days at a dose of 20 mg/kg body weight. Etomoxir-treated rats showed a 44% reduction in cardiac CPT-I activity. Treatment of Lewis rats with 20 mg/kg Etomoxir for 8 days did not alter blood glucose levels, consistent with similar Etomoxir feeding studies. Likewise, Etomoxir feeding did not affect general growth characteristics such as weight gain, nor did it affect hindlimb muscle mass. However, in Etomoxir-treated rats, both heart mass and liver mass were significantly increased by 11%.[3]<br>Etomoxir is an inhibitor of CPT1, a key enzyme involved in free fatty acid (FFA) oxidation. P53 directly interacts with Bax and Bax is inhibited by Etomoxir, further confirming the direct interaction of P53 and Bax and the involvement of FAO-mediated mitochondrial ROS generation in db/db mice.[2] |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 32.68 mg/mL (100 mM),Sonication and heating are recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.0598 mL | 15.2989 mL | 30.5979 mL |
| 5 mM | 0.612 mL | 3.0598 mL | 6.1196 mL |
| 10 mM | 0.306 mL | 1.5299 mL | 3.0598 mL |
| 50 mM | 0.0612 mL | 0.306 mL | 0.612 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.

Reference

Xu FY, et al. Etomoxir mediates differential metabolic channeling of fatty acid and glycerol precursors into cardiolipin in H9c2 cells. J Lipid Res. 2003 Feb;44(2):415-23.