TOCRIS
a bio-techne brand

Print Date: Mar 2nd 2023

# Certificate of Analysis

www.tocris.com

**Product Name:** **(*R*)-(+)-Etomoxir sodium salt** **Catalog No.: 4539** **Batch No.: 5**

CAS Number: 828934-41-4

IUPAC Name: (*R*)-(+)-2-[6-(4-Chlorophenoxy)hexyl]-oxirane-2-carboxylic acid sodium salt

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{15}H_{18}ClNaO_4.¾H_2O$

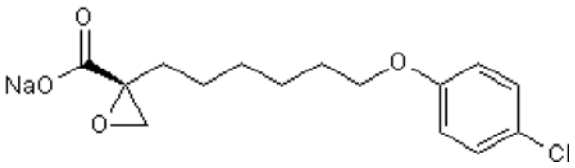
**Batch Molecular Weight:** 334.25

**Physical Appearance:** White solid

**Solubility:** water to 20 mM
DMSO to 20 mM with gentle warming

**Storage:** Store at -20°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**HPLC:** Shows 99.2% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** $[\alpha]_D$ = +14.5 (Concentration = 1, Solvent = Methanol)

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 53.9 | 5.88 | 0 |
| Found | 53.04 | 5.93 | 0 |



**bio-techne.com**
info@bio-techne.com
techsupport@bio-techne.com

**North America**
Tel: (800) 343 7475

**China**
info.cn@bio-techne.com
Tel: +86 (21) 52380373

**Europe Middle East Africa**
Tel: +44 (0)1235 529449

**Rest of World**
www.tocris.com/distributors
Tel:+1 612 379 2956

**Product Name:** **(*R*)-(+)-Etomoxir sodium salt** **Catalog No.: 4539** **5**

CAS Number: 828934-41-4

IUPAC Name: (*R*)-(+)-2-[6-(4-Chlorophenoxy)hexyl]-oxirane-2-carboxylic acid sodium salt

**Description:**

(R)-(+)-Etomoxir sodium salt is an inhibitor of carnitine palmitoyltransferase I (CPT1); inhibits β-oxidation in mitochondria. Shown to inhibit cardiolipin biosynthesis from exogenous fatty acid in H9c2 cells.

**Physical and Chemical Properties:**

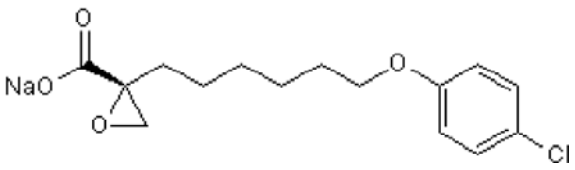
Batch Molecular Formula: $C_{15}H_{18}ClNaO_4.¾H_2O$

Batch Molecular Weight: 334.25

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**




**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 20 mM
DMSO to 20 mM with gentle warming

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Xu** *et al* (2003) Etomoxir mediates differential metabolic channeling of fatty acid and glycerol precursors into cardiolipin in H9c2 cells. J.Lipid Res. ***44*** 415. PMID: 12576524.

**Rupp** *et al* (1992) Modification of subcellular organelles in pressure-overloaded heart by etomoxir, a carnitine palmitoyltransferase I inhibitor. FASEB J. ***6*** 2349. PMID: 1531968.

**Agius** *et al* (1991) Stereospecificity of the inhibition of etomoxir of fatty acid and cholesterol synthesis in isolated rat hepatocytes. Biochem.Pharmacol. ***42*** 1717. PMID: 1930298.