

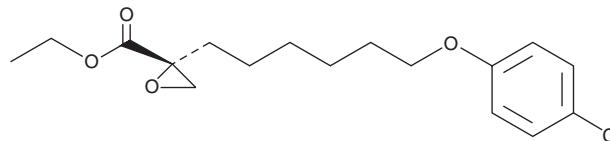
PRODUCT INFORMATION



(+)-Etomoxir

Item No. 9004470

CAS Registry No.: 124083-20-1
Formal Name: (2R)-2-[6-(4-chlorophenoxy)hexyl]-2-oxiranecarboxylic acid, ethyl ester
Synonym: (R)-(+)-Etomoxir
MF: C₁₇H₂₃ClO₄
FW: 326.8
Purity: ≥98%
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

(+)-Etomoxir is supplied as a solid. A stock solution may be made by dissolving the (+)-etomoxir in the solvent of choice, which should be purged with an inert gas. (+)-Etomoxir is soluble (≥10 mg/ml) in DMSO. (+)-Etomoxir is sparingly soluble (1-10 mg/ml) in ethanol.

Description

(+)-Etomoxir is an inhibitor of carnitine palmitoyltransferase 1 (CPT1) and a prodrug form of (+)-etomoxir (Item No. 11969).^{1,2} It is an ethyl ester that is cleaved by intracellular esterases to release the active inhibitor of CPT1.² (+)-Etomoxir decreases palmitate (Item No. 10010279) oxidation and increases glucose oxidation in isolated rat myocytes when used in a concentration-dependent manner. It reduces mitochondrial oxygen consumption rates and increases free fatty acid levels in LoVo colorectal cancer cells when used at a concentration of 40 μM.³ (+)-Etomoxir (25 mg/kg per day for five days) inhibits kidney tubule necrosis and dilation and reduces blood urea nitrogen (BUN) and serum creatinine levels in a mouse model of acute kidney damage induced by ischemia and reperfusion.⁴

References

1. Abdel-aleem, S., Li, X., Anstadt, M.P., *et al.* Regulation of glucose utilization during the inhibition of fatty acid oxidation in rat myocytes. *Horm. Metab. Res.* **26(2)**, 88-91 (1994).
2. Svedberg, J., Björntorp, P., Lönnroth, P., *et al.* Prevention of inhibitory effect of free fatty acids on insulin binding and action in isolated rat hepatocytes by etomoxir. *Diabetes* **40(6)**, 783-786 (1991).
3. Li, X., Song, D., Chen, Y., *et al.* NSD2 methylates AROS to promote SIRT1 activation and regulates fatty acid metabolism-mediated cancer radiotherapy. *Cell Rep.* **42(10)**, 113126 (2023).
4. Portilla, D., Dai, G., Peters, J.M., *et al.* Etomoxir-induced PPARα-modulated enzymes protect during acute renal failure. *Am. J. Physiol. Renal. Physiol.* **278(4)**, F667-F675 (2000).

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.

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