

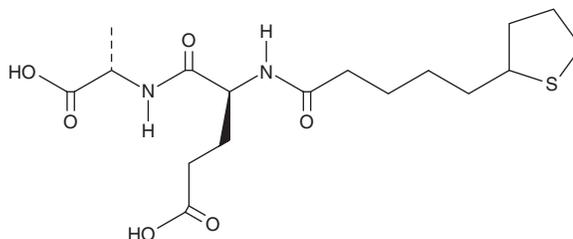
PRODUCT INFORMATION



N-[1,2-Dithiolane-3-pentanoyl]-L-glutamyl-L-alanine

Item No. 44469

CAS Registry No.: 1255918-84-3
Formal Name: N-[5-(1,2-dithiolan-3-yl)-1-oxopentyl]-L-α-glutamyl-L-alanine
Synonym: CMX-2043
MF: C₁₆H₂₆N₂O₆S₂
FW: 406.5
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

N-[1,2-Dithiolane-3-pentanoyl]-L-glutamyl-L-alanine is supplied as a solid. A stock solution may be made by dissolving the N-[1,2-dithiolane-3-pentanoyl]-L-glutamyl-L-alanine in the solvent of choice, which should be purged with an inert gas. N-[1,2-Dithiolane-3-pentanoyl]-L-glutamyl-L-alanine is slightly soluble (0.1-1 mg/ml) in a 1:1 solution of acetonitrile:water.

Description

N-[1,2-Dithiolane-3-pentanoyl]-L-glutamyl-L-alanine is a derivative of DL-α-lipoic acid (Item No. 10005728).¹ It decreases infarct area in a rat model of myocardial infarction induced by ischemia and reperfusion injury when administered at doses of 1 or 2 mg/kg. N-[1,2-Dithiolane-3-pentanoyl]-L-glutamyl-L-alanine reduces hemispheric swelling, midline shift, and intracerebral hemorrhaging in a porcine model of traumatic brain injury (TBI) induced by controlled cortical impact.²

References

1. Kates, S.A., Casale, R.A., Baguisi, A., *et al.* Lipoic acid analogs with enhanced pharmacological activity. *Bioorg. Med. Chem.* **22(1)**, 505-512 (2014).
2. Schantz, S.L., LePage, T.H., Dubrof, S.T., *et al.* CMX-2043 treatment limits neural injury pathophysiology and promotes neurological and cognitive recovery in a pediatric porcine traumatic brain injury model. *J. Neurotrauma* (2025).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/02/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM