

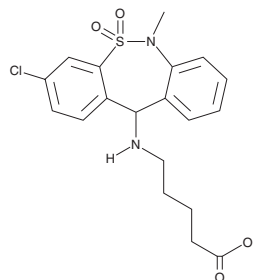
PRODUCT INFORMATION



Tianeptine Metabolite MC5

Item No. 36694

CAS Registry No.: 115220-11-6
Formal Name: 5-[(3-chloro-6,11-dihydro-6-methyl-5,5-dioxidodibenzo[c,f][1,2]thiazepin-11-yl)amino]-pentanoic acid
MF: C₁₉H₂₁ClN₂O₄S
FW: 408.9
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

Tianeptine metabolite MC5 is supplied as a solid. A stock solution may be made by dissolving the tianeptine metabolite MC5 in the solvent of choice, which should be purged with an inert gas. Tianeptine metabolite MC5 is slightly soluble in dichloromethane, DMSO, and methanol.

Description

Tianeptine metabolite MC5 is an active metabolite of the atypical antidepressant tianeptine (Item No. 17561).¹ It is formed from tianeptine by β -oxidation.² Tianeptine metabolite MC5 selectively induces G protein activation in bioluminescence resonance energy transfer (BRET) assays using HEK293T cells expressing the human μ -opioid receptor (MOR) over the human δ -opioid receptor (DOR; EC₅₀s = 0.454 and >100 μ M, respectively).¹ It decreases immobility in the forced swim test in wild-type mice, but not MOR knockout mice, indicating MOR-dependent antidepressant-like activity when administered at a dose of 30 mg/kg.

References

1. Samuels, B.A., Nautiyal, K.M., Kruegel, A.C., *et al.* The behavioral effects of the antidepressant tianeptine require the mu-opioid receptor. *Neuropsychopharmacology* **42**(10), 2052-2063 (2017).
2. Szafarz, M., Wencel, A., Pocięcha, K., *et al.* Pharmacokinetic study of tianeptine and its active metabolite MC5 in rats following different routes of administration using a novel liquid chromatography tandem mass spectrometry analytical method. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **391**(2), 185-196 (2017).

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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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