

# 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-dioxodibenzoc[c,f][1,2]thiazepin-11-yl)amino]-pentanoic acid

MF: C<sub>19</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>4</sub>S

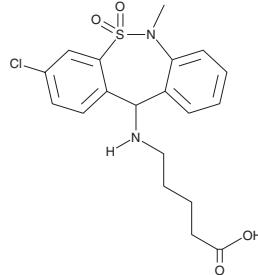
FW: 408.9

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).<sup>1</sup> It is formed from tianeptine by β-oxidation.<sup>2</sup> 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; EC<sub>50</sub>s = 0.454 and >100 μM, respectively).<sup>1</sup> 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., Pociecha, 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 Schmiedebergs 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.

#### 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, 08/07/2024

### 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