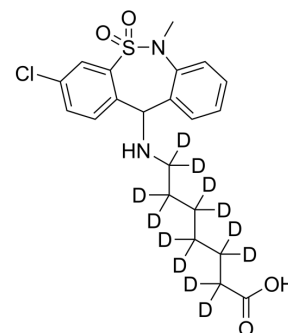


## Tianeptine-d<sub>12</sub>

Cat. No.:	HY-90003S
CAS No.:	1189870-26-5
Molecular Formula:	C <sub>21</sub> H <sub>13</sub> D <sub>12</sub> ClN <sub>2</sub> O <sub>4</sub> S
Molecular Weight:	449.03
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Tianeptine-d <sub>12</sub> is a deuterated analog of Tianeptine. Tianeptine is an antidepressant with oral activity and neurochemical properties. Tianeptine has neuroprotective effects against hypoxia in tissue culture and against the deleterious effects of cytokines in the cortex and white matter, but not against NMDA receptor-mediated excitotoxicity <sup>[1][2][3][4]</sup> .
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Wagstaff A J, et al. Tianeptine: a review of its use in depressive disorders[J]. *CNS drugs*, 2001, 15: 231-259.
- [3]. Plaisant F, et al. Neuroprotective properties of tianeptine: interactions with cytokines[J]. *Neuropharmacology*, 2003, 44(6): 801-809.
- [4]. Sharma A K, et al. Effects of calcium channel blocker, nifedipine, on antidepressant activity of fluvoxamine, venlafaxine and tianeptine in mice[J]. *Int J Basic Clin Pharmacol*, 2015, 4: 1-7.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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