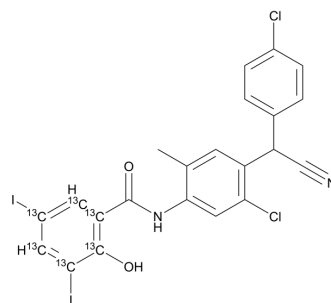


## Closantel-<sup>13</sup>C<sub>6</sub>

<b>Cat. No.:</b>	HY-17596S
<b>CAS No.:</b>	1325559-20-3
<b>Molecular Formula:</b>	C <sub>16</sub> <sup>13</sup> C <sub>6</sub> H <sub>14</sub> Cl <sub>2</sub> I <sub>2</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	669.03
<b>Target:</b>	Parasite; Isotope-Labeled Compounds
<b>Pathway:</b>	Anti-infection; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Closantel- <sup>13</sup> C <sub>6</sub> is the <sup>13</sup> C <sub>6</sub> labeled Closantel. Closantel is a halogenated salicylanilide with a potent anti-parasitic activity. Closantel is a potent and highly specific <i>Onchocerca volvulus</i> chitinase (OvCHT1) inhibitor with an IC <sub>50</sub> of 1.6 μM and a K <sub>i</sub> of 468 nM. Closantel inhibits the <i>O. volvulus</i> L3 to L4 molt of developing.
<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]. Amanda L Garner, et al. Design, synthesis, and biological activities of closantel analogues: structural promiscuity and its impact on *Onchocerca volvulus*. *J Med Chem.* 2011 Jun 9;54(11):3963-72.
- [2]. Amanda L Garner, et al. Design, synthesis, and biological activities of closantel analogues: structural promiscuity and its impact on *Onchocerca volvulus*. *J Med Chem.* 2011 Jun 9;54(11):3963-72.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.

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

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