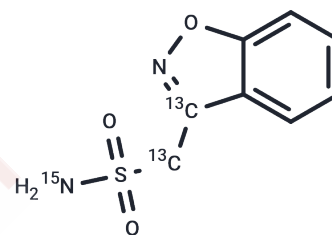


## Zonisamide-13C2,15N

## Chemical Properties

CAS No. :	1188265-58-8
Formula:	C <sub>8</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub> S
Molecular Weight:	215.2
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Zonisamide-13C <sub>2</sub> ,15N is intended for use as an internal standard for the quantification of zonisamide by GC- or LC-MS. Zonisamide (T0267) is an antiepileptic agent. <sup>1</sup> It selectively inhibits the repeated firing of sodium channels (IC <sub>50</sub> = 2 µg/ml) in mouse embryo spinal cord neurons and inhibits spontaneous channel firing when used at concentrations greater than 10 µg/ml. <sup>2</sup> In rat cerebral cortex neurons, zonisamide (1-1,000 µM) inhibits T-type calcium channels with a maximum reduction of 60% of the calcium current. <sup>3</sup> Zonisamide (T0267) inhibits H. pylori recombinant carbonic anhydrase (CA) and the human CA isoforms I, II, and V with K <sub>i</sub> values of 218, 56, 35, and 21 nM, respectively. <sup>4,5</sup> In mice, it has anticonvulsant activity against maximal electroshock seizure (MES) and pentylenetetrazole-induced maximal, but not minimal, seizures (ED <sub>50</sub> s = 19.6, 9.3, and >500 mg/kg, respectively). Zonisamide (T0267) (40 mg/kg, p.o.) prevents MPTP-induced decreases in the levels of dopamine, but not homovanillic acid or dihydroxyphenyl acetic acid, and increases MPTP-induced decreases in the dopamine turnover rate in mouse striatum in a model of Parkinson's disease. <sup>6</sup> Formulations containing zonisamide have been used in the treatment of partial seizures in adults with epilepsy.
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## Solubility Information

Solubility	DMSO: Slightly soluble Methanol: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6468 mL	23.2342 mL	46.4684 mL
5 mM	0.9294 mL	4.6468 mL	9.2937 mL
10 mM	0.4647 mL	2.3234 mL	4.6468 mL
50 mM	0.0929 mL	0.4647 mL	0.9294 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

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