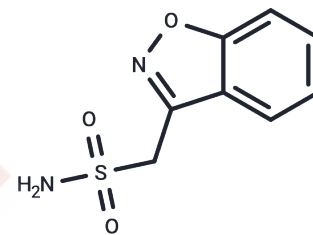


## Zonisamide

## Chemical Properties

CAS No. :	68291-97-4
Formula:	C <sub>8</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub> S
Molecular Weight:	212.23
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 (AD 810), a sulfonamide anticonvulsant, is approved for use as an adjunctive treatment in adults with partial-onset seizures. It may inhibit a carbonic anhydrase although this is not one of the main mechanisms of action. Zonisamide may act by blocking repetitive firing of voltage-gated sodium channels results in a reduction of T-type calcium channel currents, or by binding allosterically to GABA receptors. This latter action may lower the uptake of the inhibitory neurotransmitter GABA while increasing the uptake of the excitatory neurotransmitter glutamate.
Targets(IC50)	Apoptosis, Calcium Channel, Carbonic Anhydrase, Sodium Channel
In vitro	Zonisamide inhibits monoamine oxidase B activity in vitro with an IC50 of 25 µM.
In vivo	Zonisamide inhibits monoamine oxidase B activity in vitro with an IC50 of 25 µM.

## Solubility Information

Solubility	DMSO: 250 mg/mL (1177.97 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (47.12 mM), Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (9.42 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.7119 mL	23.5593 mL	47.1187 mL
5 mM	0.9424 mL	4.7119 mL	9.4237 mL
10 mM	0.4712 mL	2.3559 mL	4.7119 mL
50 mM	0.0942 mL	0.4712 mL	0.9424 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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