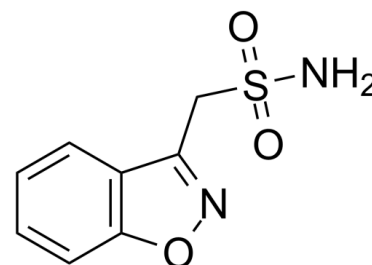


Data Sheet

Product Name:	Zonisamide
Cat. No.:	CS-1888
CAS No.:	68291-97-4
Molecular Formula:	C ₈ H ₈ N ₂ O ₃ S
Molecular Weight:	212.23
Target:	Calcium Channel; Sodium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Solubility:	DMSO : ≥ 100 mg/mL (471.19 mM); H ₂ O : 0.67 mg/mL (3.16 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Zonisamide is a 1,2 benzisoxazole derivative and the first agent of this chemical class to be developed as an antiepileptic drug. Target: Calcium channel inhibitor; Sodium channel inhibitor Zonisamide is a sulfonamide anticonvulsant approved for use as an adjunctive therapy in adults with partial-onset seizures for adults; infantile spasm, mixed seizure types of Lennox-Gastaut syndrome, myoclonic, and generalized tonic clonic seizure. Zonisamide is a 1,2 benzisoxazole derivative and the first agent of this chemical class to be developed as an antiepileptic drug. It has shown activity in various animal models of epilepsy, and although a detailed mode of action awaits clarification it appears to block the propagation/spread of seizure discharges and to suppress the epileptogenic focus [1]. Zonisamide 500 mg/day was significantly superior to placebo in reducing the frequency of complex partial seizures (-51% versus -16%), all partial seizures and all seizures, with dose-dependent benefit provided over a 100-500 mg/day dose range. Supporting trials have confirmed significant increases in reduction in median seizure frequency (up to 41%) and responder rates (35-42%) compared with placebo following zonisamide 400-600 mg/day, enabling 20-27% of patients to attain ≥75% reduction in seizure frequency [2]. Clinical indications: Epilepsy; Lewy body dementia; Parkinsons disease Toxicity: Anorexia; Somnolence; Dizziness; Irritability; Confusional state; Depression; Diplopia; Memory impairment

References:

- [1]. Peters DH, et al. Zonisamide. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in epilepsy. *Drugs*. 1993 May;45(5):760-87.
- [2]. Brodie MJ, et al. Zonisamide as adjunctive therapy for refractory partial seizures. *Epilepsy Res*. 2006 Feb;68 Suppl 2:S11-6. Epub 2005 Nov 28.

CAIndexNames:

1,2-Benzisoxazole-3-methanesulfonamide

SMILES:

O=S(CC1=NOC2=C1C=CC=C2)(N)=O

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

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