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## DATASHEET

Sipatrigine

### Product overview

|                          |                                                    |
|--------------------------|----------------------------------------------------|
| <b>Name</b>              | Sipatrigine                                        |
| <b>Cat No</b>            | HB1032                                             |
| <b>Alternative names</b> | 619C89                                             |
| <b>Biological action</b> | Blocker                                            |
| <b>Purity</b>            | >98%                                               |
| <b>Description</b>       | Na <sup>+</sup> / Ca <sup>2+</sup> channel blocker |

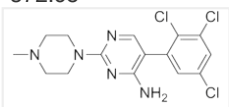
### Biological Data

|                               |                                                                                                                                                                                                                                                                           |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Biological description</b> | Na <sup>+</sup> , Ca <sup>2+</sup> channel blocker (IC <sub>50</sub> = 10 μM for R type Ca <sup>2+</sup> channel currents). Also acts as TREK-1 antagonist and inhibits glutamate release. Analog of lamotrigine. Displays neuroprotective and antidepressant properties. |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Solubility & Handling

|                             |                                                                                                                              |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage instructions</b> | Room temperature                                                                                                             |
| <b>Solubility overview</b>  | Soluble in DMSO (100mM) or ethanol (25mM)                                                                                    |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use |

### Chemical Data

|                           |                                                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Chemical name</b>      | 2-(4-Methyl-1-piperazinyl)-5-(2,3,5-trichlorophenyl)-4-pyrimidinamine                                                    |
| <b>Molecular Weight</b>   | 372.68                                                                                                                   |
| <b>Chemical structure</b> |                                       |
| <b>Molecular Formula</b>  | C <sub>15</sub> H <sub>16</sub> Cl <sub>3</sub> N <sub>5</sub>                                                           |
| <b>CAS Number</b>         | 130800-90-7                                                                                                              |
| <b>PubChem identifier</b> | 60803                                                                                                                    |
| <b>SMILES</b>             | ClC1=CC(Cl)=C(C1)C(C2=C(N)N=C(N3CCN(C)CC3)N=C2)=C1                                                                       |
| <b>InChi</b>              | InChI=1S/C15H16Cl3N5/c1-22-2-4-23(5-3-22)15-20-8-11(14(19)21-15)10-6-9(16)7-12(17)13(10)18/h6-8H,2-5H2,1H3,(H2,19,20,21) |
| <b>InChiKey</b>           | PDOCBJADCWMDGL-UHFFFAOYSA-N                                                                                              |
| <b>MDL number</b>         | MFCD00867772                                                                                                             |

### References

The neuroprotective agent sipatrigine blocks multiple cardiac ion channels and causes triangulation of the ventricular action potential.

Gao Z *et al* (2005) Clin Exp Pharmacol Physiol 32(12)

PubMedID [16445575](#)

**BW619C89, a glutamate release inhibitor, protects against focal cerebral ischemic damage.**

Leach MJ *et al* (1993) *Stroke* 24(7)

**PubMedID** [8100654](#)

**Sipatrigine could have therapeutic potential for major depression and bipolar depression through antagonism of the two-pore-domain K<sup>+</sup> channel TREK-1.**

Tsai SJ (2008) *Med Hypotheses* 70(3)

**PubMedID** [17703894](#)

**Actions of sipatrigine, 202W92 and lamotrigine on R-type and T-type Ca<sup>2+</sup> channel currents.**

Hainsworth AH *et al* (2003) *Eur J Pharmacol* 467(1-3)

**PubMedID** [12706458](#)

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