

Hello Bio, Inc.  
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500  
F. 609-228-4994

customercare-usa@hellobio.com



## DATASHEET

KC 12291 hydrochloride

### Product overview

|                          |                                               |
|--------------------------|-----------------------------------------------|
| <b>Name</b>              | KC 12291 hydrochloride                        |
| <b>Cat No</b>            | HB1019                                        |
| <b>Biological action</b> | Blocker                                       |
| <b>Purity</b>            | >97%                                          |
| <b>Description</b>       | Atypical voltage-gated sodium channel blocker |

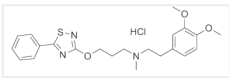
### Biological Data

|                               |                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Biological description</b> | Atypical voltage-gated sodium channel blocker. Reduces sustained Na <sup>+</sup> channel current and inhibits peak current. Inhibits veratridine- and LPC-induced sustained sodium current contractures (IC <sub>50</sub> values are 0.55 and 0.79 μM respectively). Shows cardioprotective, antiischemic and bradycardic actions. |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Solubility & Handling

|                                      |                                                                                                                                                                                                                          |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Solubility overview</b>           | Soluble in water (25mM) or DMSO (50mM)                                                                                                                                                                                   |
| <b>Storage instructions</b>          | +4 °C (desiccate)                                                                                                                                                                                                        |
| <b>Storage of solutions</b>          | Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.                   |
| <b>Shipping Conditions Important</b> | Stable for <b>ambient temperature</b> shipping. Follow storage instructions on receipt.<br>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>      | 3,4-Dimethoxy- <i>N</i> -methyl- <i>N</i> -[3-[(5-phenyl-1,2,4-thiadiazol-3-yl)oxy]propyl]benzeneethanamine hydrochloride |
| <b>Molecular Weight</b>   | 449.99                                                                                                                    |
| <b>Chemical structure</b> |                                        |
| <b>Molecular Formula</b>  | C <sub>22</sub> H <sub>27</sub> N <sub>3</sub> O <sub>3</sub> S.HCl                                                       |
| <b>CAS Number</b>         | 181936-98-1                                                                                                               |
| <b>PubChem identifier</b> | 22902387                                                                                                                  |
| <b>SMILES</b>             | CN(CCCOC2=NSC(C3=CC=CC=C3)=N2)CCC1=CC=C(OC)C(OC)=C1.Cl                                                                    |
| <b>InChIKey</b>           | KIJPRQYBNQKUAU-UHFFFAOYSA-N                                                                                               |

### References

**KC 12291: an atypical sodium channel blocker with myocardial antiischemic properties.**

John GW *et al* (2004) Cardiovasc Drug Rev 22(1)

**PubMedID** [14978516](#)

**Pharmacological characterisation of sodium channels in sinoatrial node pacemaking in the rat heart.**

Létienne R *et al* (2006) Eur J Pharmacol 530(3)

**PubMedID**

16368090

**Anti-ischemic compound KC 12291 prevents diastolic contracture in isolated atria by blockade of voltage-gated sodium channels.**

Tamareille S *et al* (2002) J Cardiovasc Pharmacol 40(3)

**PubMedID**

12198320

---