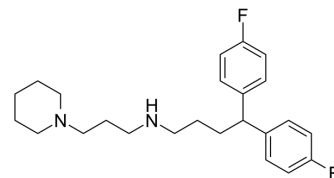


VGSC blocker-1

Cat. No.:	HY-126005
CAS No.:	2230472-55-4
Molecular Formula:	C ₂₄ H ₃₂ F ₂ N ₂
Molecular Weight:	386.52
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	VGSC blocker-1 is a potent and small molecule blocker of neonatal isoform of the VGSC subtype, Nav1.5 (nNav1.5). VGSC blocker-1 blocks INa peak currents 34.9% at 1 μ M and inhibits cell invasion 0.3% at 1 μ M in human breast cancer cell line MDA-MB-231, without affecting the cell viability ^[1] .								
IC₅₀ & Target	VGSC blocker-1 is a potent and small molecule blocker of neonatal isoform of the VGSC subtype, Nav1.5 (nNav1.5) ^[1] .								
In Vitro	<p>VGSC blocker 1 (compound 1) (1.0 to 10 μM) inhibits human breast cancer cell line MDA-MB-231^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>human breast cancer cell line MDA-MB-231</td> </tr> <tr> <td>Concentration:</td> <td>1.0 to 10μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>VGSC blocker 1 blocks INa peak currents 34.9% at 1 μM and inhibits cell invasion 0.3% at 1 μM. These values are much higher than the concentrations required (0.1 μM and 1 μM) to produce significant nNav1.5 current blockade and cell invasion inhibition.</td> </tr> </table>	Cell Line:	human breast cancer cell line MDA-MB-231	Concentration:	1.0 to 10 μ M	Incubation Time:	24 hours	Result:	VGSC blocker 1 blocks INa peak currents 34.9% at 1 μ M and inhibits cell invasion 0.3% at 1 μ M. These values are much higher than the concentrations required (0.1 μ M and 1 μ M) to produce significant nNav1.5 current blockade and cell invasion inhibition.
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REFERENCES

[1]. Dutta S, et al. Discovery and evaluation of nNav1.5 sodium channel blockers with potent cell invasion inhibitory activity in breast cancer cells. *Bioorg Med Chem.* 2018;26(9):2428-2436.

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

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