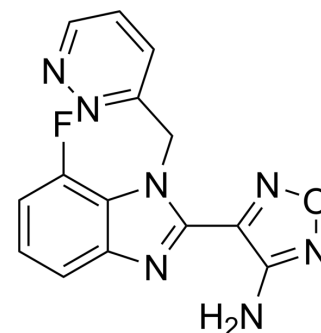


## CVN293

<b>Cat. No.:</b>	HY-158155
<b>CAS No.:</b>	2815296-08-1
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>10</sub> FN <sub>7</sub> O
<b>Molecular Weight:</b>	311.27
<b>Target:</b>	Potassium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	CVN293 is a selective and brain permeable potassium ion (K <sup>+</sup> ) channel KCNK13 inhibitor with IC <sub>50</sub> s of 41 nM and 28 nM for hKCNK13 and mKCNK13, respectively. CVN293 potently inhibits the NLRP3-inflammasome mediated production of the proinflammatory cytokine IL-1β in microglia <sup>[1]</sup> .					
<b>IC<sub>50</sub> &amp; Target</b>	hKCNK13 41 nM (IC <sub>50</sub> )	mKCNK13 28 nM (IC <sub>50</sub> )	hKCNK6 >30000 nM (IC <sub>50</sub> )	hKCNK2 >30000 nM (IC <sub>50</sub> )		
<b>In Vitro</b>	CVN293 (0.05, 0.5, 5 μM) demonstrates a concentration-dependent inhibition of the NLRP3-inflammasome mediated production of IL-1β from LPS-primed murine microglia <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.					
<b>In Vivo</b>	Pharmacokinetic Parameters of CVN293 in male Sprague-Dawley rat, dog and cynomolgus monkey <sup>[1]</sup> .					
	IV (0.5 mg/kg; rat)	PO (3 mg/kg; rat)	IV (1 mg/kg; dog)	PO (10 mg/kg; dog)	IV (1 mg/kg; cynomolgus monkey)	PO (3 mg/kg; cynomolgus monkey)
T <sub>max</sub> (h)		1.0		1.25		1.0
C <sub>max</sub> (ng/mL)		468		241		165
AUC <sub>0-∞</sub> (ng•h/mL)	222	1236	438	630	782	546
t <sub>1/2</sub> (h)	1.0	2.0	0.5	2.6	1.1	1.9
CLp (mL/min/kg)	35		38		22	
V <sub>ss</sub> (L/kg)	1.85		1.42		1.45	

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F (%)	87	41	24
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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

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[1]. Roland W. Bürli, et al. Discovery of CVN293, a Brain Permeable KCNK13 (THIK-1) Inhibitor Suitable for Clinical Assessment. ACS Med. Chem. Lett. 2024.

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

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