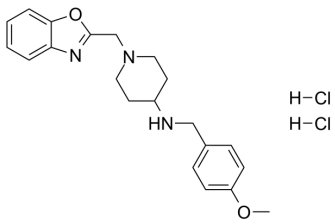
DDO-02005

Cat. No.:	HY-144801A
CAS No.:	1186049-44-4
Molecular Formula:	$C_{21}H_{27}Cl_2N_3O_2$
Molecular Weight:	424.36
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DDO-02005 is a potent Kv1.5 potassium channel inhibitor with an IC_{50} value of 0.72 μM. DDO-02005 has good anti-atrial fibrillation (AF) effect in $CaCl_2$-ACh AF rats model and effective anti-arrhythmic activity caused by aconitine[1].
IC_{50} & Target	IC_{50}: 0.72 μM (Kv1.5 potassium channel)[1]
In Vivo	DDO-02005 (0.1, 1, 3, 9 mg/kg; IV, single dosage) effectively combat the arrhythmogenic toxicity of aconitine in rats[1]. Pharmacokinetic Parameters of DDO-02005 in Sprague-Dawley rats[1].

	IV (1 mg/kg)	PO (1.25 mg/kg)
$t_{1/2}$ (h)	3.23 ± 1.07	6.25 ± 2.40
C_{max} (μg/L)	90.23 ± 28.83	1.27 ± 0.40
AUC_{0-t} (μg/L·h)	178.42 ± 39.33	4.41 ± 0.69
CL (L/h/kg)	5.83 ± 1.44	36.51 ± 2.54

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Zhao L, et al. Design, synthesis, and biological evaluation of arylmethylpiperidines as Kv1.5 potassium channel inhibitors. J Enzyme Inhib Med Chem. 2022;37(1):462-471.

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

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