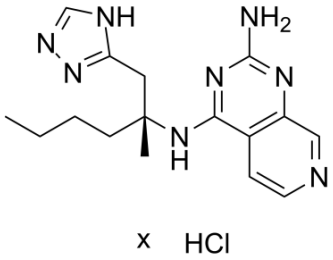
TLR8 agonist 2 hydrochloride

Cat. No.:	HY-141454A
CAS No.:	2412937-65-4
Molecular Formula:	$C_{16}H_{22}N_8$.xHCl
Target:	Toll-like Receptor (TLR)
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	TLR8 agonist 2 hydrochloride is a potent and selective TLR8 agonist with an EC_{50} of 3 nM for human TLR8. TLR8 agonist 2 hydrochloride shows less active against human TLR7 (EC_{50} of 33.33 μM)[1].	
IC_{50} & Target	TLR8 3 nM (EC50)	TLR7 33.33 μM (EC50)
In Vitro	TLR8 agonist 2 (Example 1) increases the levels of TNF-α, IL-12p40, IFN-γ, and IFN-α with EC_{50} values 105 nM, 26 nM, 29 nM, and 2800 nM, respectively, in human peripheral blood mononuclear cells (hPBMC)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	The pharmacokinetic related parameters of TLR8 agonist 2 (Example 1) in mice administered with the intravenous administration of 1 mg/kg and the oral administration of 5 mg/kg are detected. The $T_{1/2}$ of TLR8 agonist 2 are 0.25 h (1 mg/kg i.v.) and 0.5 h (5 mg/kg p.o.), the AUC_{last} are 450 ng/mL*hr (i.v.) and 624 ng/mL*hr (p.o.). And for oral administration, the bioavailability (%F) is 27.7%[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Zhe Cai, et al. Tlr8 agonist. WO2020057604A1.

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