

Product Data Sheet

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.

HCI

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 μ M) $^{[1]}$.

IC₅₀ & Target TLR8 TLR7

3 nM (EC50) 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 EC₅₀ 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.

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

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