Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

TLR7-agonist-1

Catalog No: tcsc0023485

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1642857-69-9

Formula:
$C_{17}H_{16}N_6O_2$

Pathway:
Immunology/Inflammation

Target:
Toll-like Receptor (TLR)

Purity / Grade:
>98%

Solubility:
DMSO : 160 mg/mL (475.69 mM; Need ultrasonic and warming)

Observed Molecular Weight:
336.35

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Product Description

TLR7-agonist-1 is a potent and selective **Toll-like Receptor 7** (**TLR7**) agonist with a **LEC** of 0.4 μM.

IC50 & Target: LEC: 0.4 μM (TLR7)[1]

In Vitro: TLR7-agonist-1 is a potent and selective Toll-like Receptor 7 (TLR7) agonist with a lowest effective concentration (LEC) of 0.4 μM in HEK293 cell. TLR7-agonist-1 is found to be selective for TLR7 over TLR8 with LEC of >100 μM for human TLR8. TLR7-agonist-1 demonstrates low inhibition across five CYP450 isozymes (IC_{50} >10 μM) and is also not a time dependent inhibitor of CYP450 3A4. TLR7-agonist-1 has limited inhibition of the hERG potassium ion channel ^{3}H-dofetilide binding *in vitro* (IC_{50} >50 μM)[1].

In Vivo: TLR7-agonist-1 is found to be rapidly cleared in conjunction with our target profile. Both C_{max} and AUC increase less than dose proportionally between 0.3 and 3 mg/kg and more than dose-proportionally between 3 and 10 mg/kg. TLR7-agonist-1 can induce an antiviral interferon stimulated gene (ISG) response without inducing an IFNα response at a low dose. TLR7-agonist-1 also induces a 2.7 log decrease in serum HBV viral load from 0.3 mg/kg, and a maximum 3.1 log decrease is observed for doses between 1 and 5 mg/kg[1].