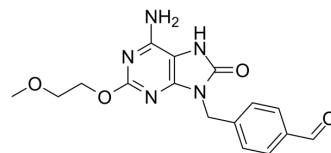


UC-1V150

Cat. No.:	HY-147215
CAS No.:	927822-45-5
Molecular Formula:	C ₁₆ H ₁₇ N ₅ O ₄
Molecular Weight:	343.34
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	UC-1V150 is a specific TLR7 (Toll-like receptor) agonist that stimulates cellular immune responses and has anti-tumor activity. UC-1V150 can be used to synthesize ISAC (Immune-Stimulating Antibody Conjugates) molecule ^{[1][2]} .								
IC₅₀ & Target	TLR7								
In Vitro	<p>UC-1V150 (0.01-10 μM, 24 hour) can stimulate the release of IL-6 and IL-2 cytokines effectively in bone-marrow-derived macrophages^[1].</p> <p>UC-1V150 (1 μg/mL, 48 hours) can increase the expression of FcγRIIA and FcγRIII while inducing an approximately 1.5-fold increase in macrophage phagocytosis index of target cells in hman monocyte-derived macrophages (hMDM)^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
In Vivo	<p>UC-1V150 (intravenous injection, 0.38-38 nM, once) effectively induces release of serum cytokines within a certain concentration range in female C57BL/6 mice (5-6 weeks of age)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Female C57BL/6 mice (5-6 weeks of age)^[1]</td> </tr> <tr> <td>Dosage:</td> <td>0.38-38 nM</td> </tr> <tr> <td>Administration:</td> <td>Intravenous injection; once</td> </tr> <tr> <td>Result:</td> <td>Induced serum cytokine IL-6 levels about 0.1 ng/mL and IL-2 levels about 1.5 ng/mL at the concentration of 38 nM.</td> </tr> </table>	Animal Model:	Female C57BL/6 mice (5-6 weeks of age) ^[1]	Dosage:	0.38-38 nM	Administration:	Intravenous injection; once	Result:	Induced serum cytokine IL-6 levels about 0.1 ng/mL and IL-2 levels about 1.5 ng/mL at the concentration of 38 nM.
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REFERENCES

[1]. Christina C N Wu, et al. Immunotherapeutic activity of a conjugate of a Toll-like receptor 7 ligand. Proc Natl Acad Sci U S A. 2007 Mar 6;104(10):3990-5.

[2]. L N Dahal, et al. UC-1V150, a potent TLR7 agonist capable of activating macrophages and potentiating mAb-mediated target cell deletion. Scand J Immunol. 2018 Jun;87(6):e12666.

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

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