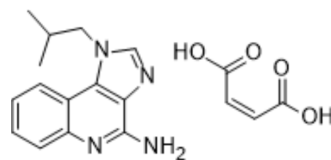


Imiquimod maleate

Cat. No.:	HY-B0180B
CAS No.:	896106-16-4
Molecular Formula:	C ₁₈ H ₂₀ N ₄ O ₄
Molecular Weight:	356.38
Target:	Toll-like Receptor (TLR); Autophagy; HSV; SARS-CoV
Pathway:	Immunology/Inflammation; Autophagy; Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (70.15 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.8060 mL	14.0300 mL	28.0599 mL	
5 mM	0.5612 mL	2.8060 mL	5.6120 mL	
10 mM	0.2806 mL	1.4030 mL	2.8060 mL	

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Imiquimod maleate (R 837 maleate), an immune response modifier, is a selective toll like receptor 7 (TLR7) agonist. Imiquimod maleate exhibits antiviral and antitumor effects in vivo. Imiquimod maleate can be used for the research of external genital, perianal warts, cancer and COVID-19^{[1][2]}.

IC₅₀ & Target

TLR7 HSV-1

In Vivo

In animal models, imiquimod stimulates the innate immune response by increasing NK cell activity, activating macrophages to secrete cytokines and nitric oxide, and inducing proliferation and differentiation of B lymphocytes. Imiquimod stimulates the innate immune response through induction, synthesis, and release of cytokines, including interferon- α (IFN- α), interleukin (IL)-6, and tumour necrosis factor (TNF)- α ^[1].

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

CUSTOMER VALIDATION

- Nat Commun. 2022 Jul 22;13(1):4255.
- Nat Commun. 2016 May 25;7:11724.
- Nucleic Acids Res. 2021 Jan 8;49(D1):D1113-D1121.
- Biomaterials. 2022 Feb 14;282:121411.
- Biomaterials. 2021, 120724.

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REFERENCES

- [1]. Athina Angelopoulou, et al. Imiquimod - A toll like receptor 7 agonist - Is an ideal option for management of COVID 19. Environ Res. 2020 Sep; 188: 109858.
- [2]. Aditya K Gupta, et al. Imiquimod: a review. J Cutan Med Surg. Nov-Dec 2002;6(6):554-60.
- [3]. Yuji Kan, et al. Imiquimod suppresses propagation of herpes simplex virus 1 by upregulation of cystatin A via the adenosine receptor A1 pathway. J Virol. 2012 Oct;86(19):10338-46.
- [4]. Michael P Schön, et al. The small antitumoral immune response modifier imiquimod interacts with adenosine receptor signaling in a TLR7- and TLR8-independent fashion. J Invest Dermatol. 2006 Jun;126(6):1338-47.
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Caution: Product has not been fully validated for medical applications. For research use only.

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