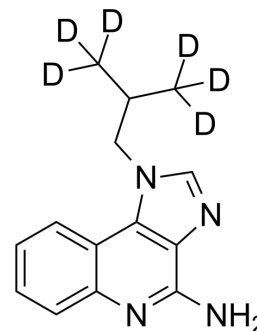


## Imiquimod-d6

<b>Cat. No.:</b>	HY-B0180S
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>10</sub> D <sub>6</sub> N <sub>4</sub>
<b>Molecular Weight:</b>	246.34
<b>Target:</b>	Toll-like Receptor (TLR); Autophagy; SARS-CoV; HSV
<b>Pathway:</b>	Immunology/Inflammation; Autophagy; Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Imiquimod-d6 (R 837-d6) is the deuterium labeled Imiquimod. Imiquimod (R 837), an immune response modifier, is a selective toll like receptor 7 (TLR7) agonist. Imiquimod exhibits antiviral and antitumor effects in vivo. Imiquimod can be used for the research of external genital, perianal warts, cancer and COVID-19 <sup>[1][2]</sup> .
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. 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.
- [3]. Aditya K Gupta, et al. Imiquimod: a review. *J Cutan Med Surg.* Nov-Dec 2002;6(6):554-60.
- [4]. 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.
- [5]. 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.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA