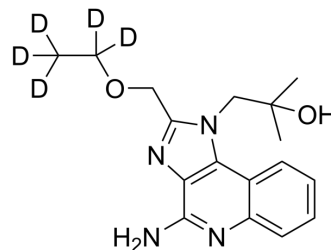


Resiquimod-d₅

Cat. No.:	HY-13740S		
CAS No.:	2252319-44-9		
Molecular Formula:	C ₁₇ H ₁₇ D ₅ N ₄ O ₂		
Molecular Weight:	319.41		
Target:	Toll-like Receptor (TLR); HCV		
Pathway:	Immunology/Inflammation; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (156.54 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.1308 mL	15.6539 mL	31.3077 mL
		5 mM	0.6262 mL	3.1308 mL	6.2615 mL
10 mM		0.3131 mL	1.5654 mL	3.1308 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.83 mM); Clear solution Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.25 mg/mL (3.91 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (3.91 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Resiquimod-d ₅ is deuterium labeled Resiquimod. Resiquimod is a Toll-like receptor 7 and 8 (TLR7/TLR8) agonist that induces the upregulation of cytokines such as TNF-α, IL-6 and IFN-α[1][2].	
IC₅₀ & Target	TLR7	TLR8

REFERENCES

[1]. Sachan S, et al. Adjuvant potential of resiquimod with inactivated Newcastle disease vaccine and its mechanism of action in chicken. *Vaccine*. 2015 Aug 26;33(36):4526-32.

[2]. Zhou ZX, et al. Immune effects of R848: evidences that suggest an essential role of TLR7/8-induced, Myd88- and NF- κ B-dependent signaling in the antiviral immunity of Japanese flounder (*Paralichthys olivaceus*). *Dev Comp Immunol*. 2015 Mar;49(1):113-20.

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

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