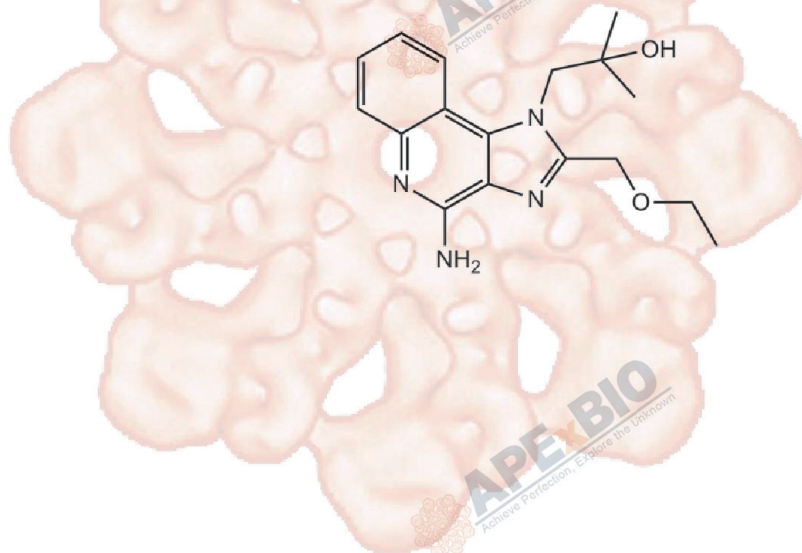


Product Data Sheet

Resiquimod (R-848)

Cat. No.:	B1054
CAS No.:	144875-48-9
Formula:	C ₁₇ H ₂₂ N ₄ O ₂
M.Wt:	314.38
Synonyms:	
Target:	Immunology/Inflammation
Pathway:	TLR
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥12.65 mg/mL in EtOH with ultrasonic; ≥15.85 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	3.1809 mL	15.9043 mL	31.8086 mL
	5 mM	0.6362 mL	3.1809 mL	6.3617 mL
	10 mM	0.3181 mL	1.5904 mL	3.1809 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Immune response modifier

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: Peritoneal macrophages from wild-type and MyD88-deficient mice

Preparation method: The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.

Reacting conditions: 100 nM

	Applications:	Unlike LPS-induced activation, which was MyD88-independent, Resiquimod-induced activation of NF- κ B was completely dependent on MyD88. It was implied that Resiquimod activated macrophages via TLRs.
In Vivo	Animal experiment	
	Animal models:	Wild-type, TLR7-deficient and MyD88-deficient mice
	Dosage form:	50 nmol; i.p.
	Applications:	In wild-type mice, Resiquimod (50 nmol, i.p.) increased serum concentrations of cytokines including IFN-alpha, TNF-alpha and IL-12. However, in TLR7-deficient and MyD88-deficient mice, there was not any increase in these cytokines.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Mohammed S, Vineetha NS, et al. "Examination of the role of sphingosine kinase 2 in a murine model of systemic lupus erythematosus." FASEB J. 2019 Jun;33(6):7061-7071.PMID:30840833
2. Qu S, Qin T, et al. "The effects of resiquimod in an ovalbumin-induced allergic rhinitis model." Int Immunopharmacol. 2018 Jun;59:233-242.PMID:29665497

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References

- [1]. Hemmi H, Kaisho T, Takeuchi O, Sato S, Sanjo H, Hoshino K, Horiuchi T, Tomizawa H, Takeda K, Akira S. Small anti-viral compounds activate immune cells via the TLR7 MyD88-dependent signaling pathway. Nat Immunol. 2002 Feb;3(2):196-200.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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