

# Resiquimod

## Catalog No: tcsc1706



### Available Sizes

**Size:** 10mg

**Size:** 25mg

**Size:** 50mg

**Size:** 100mg



### Specifications

**Research Area:**

Anti-infection; Immunology/Inflammation

**CAS No:**

144875-48-9

**Formula:**

$C_{17}H_{22}N_4O_2$

**Pathway:**

Immunology/Inflammation

**Target:**

Toll-like Receptor (TLR)

**Form:**

White to off-white (Solid)

**Purity / Grade:**

>99.96%

**Solubility:**

DMF: 50mg/ml (159.04mM ; Need Ultrasonic )

DMSO :  $\geq 30$  mg/mL (95.43 mM)

H<sub>2</sub>O :

#### Storage Instruction:

Storage temp. 2-8°C

#### Alternative Names:

R848;S28463, 1H-Imidazo[4,5-c]quinoline-1-ethanol, 4-amino-2-(ethoxymethyl)- $\alpha,\alpha$ -dimethyl

#### Observed Molecular Weight:

314.38

### References

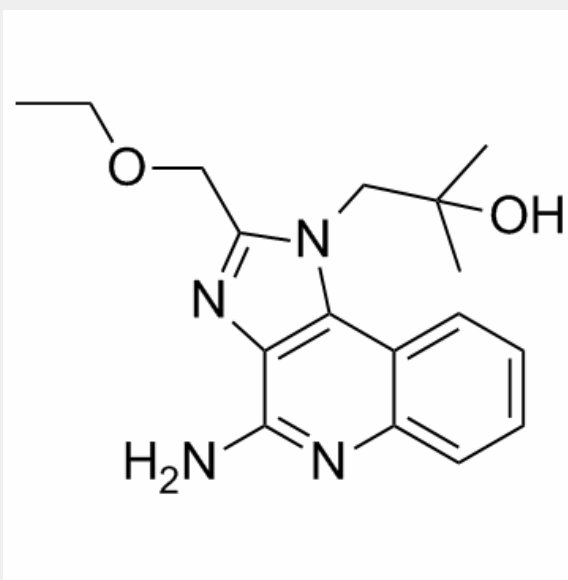
[1]. Sachan S, et al. Adjuvant potential of resiquimod with inactivated Newcastle disease vaccine and its mechanism of action in chicken. *Vaccine*. 2015 Aug 26;33(36):4526-32. [2]. Brugnolo F, et al. The novel synthetic immune response modifier R-848 (Resiquimod) shifts human allergen-specific CD4+ TH2 lymphocytes into IFN $\gamma$ -producing cells. *J Allergy Clin Immunol*. 2003 Feb;111(2):380-8. [3]. Zhou ZX, et al. Immune effects of R848: evidences that suggest an essential role of TLR7/8-induced, Myd88- and NF- $\kappa$ B-dependent signaling in the antiviral immunity of Japanese flounder (*Paralichthys olivaceus*). *Dev Comp Immunol*. 2015 Mar;49(1):113-20.

### Product Description

Resiquimod is a Toll-like receptor 7 and 8 (**TLR7/TLR8**) agonist that induces the levels of cytokines such as TNF- $\alpha$ , IL-6 and IFN- $\alpha$ .

**In Vitro:** Resiquimod (R-848) induces both hapten- and allergen-specific circulating T cells, including TH2 effectors, to produce IFN- $\gamma$  and even to lose the ability to produce IL-4<sup>[2]</sup>. Resiquimod (R848) enhances PBL proliferation in a dose-dependent manner, and increases the number of BrdU-positive cells in BrdU incorporation assay. Cells treated with R848 exhibits significantly increased (3.5-fold) luciferase (a reporter of NF- $\kappa$ B activity) activity<sup>[3]</sup>.

**In Vivo:** Resiquimod (R-848) (50  $\mu$ g/bird, i.m. route) significantly up-regulates the expression of IFN- $\alpha$ , IFN- $\beta$ , IFN- $\gamma$ , IL-1 $\beta$ , IL-4, iNOS and MHC-II genes in SPF chicken<sup>[1]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!