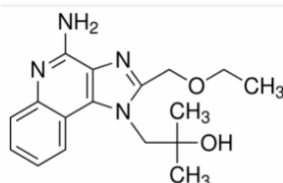


Product Specification Sheet

<input type="checkbox"/>	R848-1	Resiquimod (Imidazoquinoline compound)-TLR7/8 agonist, antigen grade	Size: 1 mg
<input type="checkbox"/>	R848-5	Resiquimod (Imidazoquinoline compound)--TLR7/8 agonist, antigen grade	Size: 5 mg

Synonyms: Resiquimod, 4-Amino-2-(ethoxymethyl)-alpha, R-848, R848, S28463, alpha-dimethyl-1H-imidazo(4,5-c)quinoline-1-ethanol.



Toll-like receptor (TLR) family plays a fundamental role in pathogen recognition and activation of innate immunity. They recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate

the production of cytokines necessary for the development of effective immunity. The various TLRs exhibit different patterns of expression

Toll-like receptor 7 (TLR7) agonist induces up regulation of IL-6, IL-12, IFN- γ and iNOS expression in mouse bone marrow-derived macrophages (BMMs). Genetics variants in TLR8 has recently been linked to susceptibility to pulmonary tuberculosis

The imidazoquinoline compound R848 (Resiquimod) is a guanosine derivative Resiquimod (R-848) is a potent synthetic agonist of TLR7/TLR8 that possesses antiviral and antitumoral activities, stimulates cells through a toll-like receptors (TLR) 7 and 8 dependent pathway resulting in activation of immune responses that are effective against viral and tumor lesions

It is also an effective adjuvant by activating dendritic cells (DCs) and B cells to induce cytokines optimal for Th1 cell immunity, and antibody production.

Resiquimod may be used in immunological and cancer-related cell signaling studies and is being evaluated as an adjuvant in FDA-approved clinical vaccine trials. R848 promotes the secretion of Th1 cytokines, including IFN- γ , IFN- α , IL-12 and TNF- α and augmentation of Th1 IgG2a and away from a Th2 IgE response, a feature mediated in part by IFN- α and IL-12.

Recommended Usage

Activation of mouse TLR7 and human TLR7 and TLR8 in the range of 5-20 ug/does or 0.5- 5 ug/ml in vitro.

R848

Formula	C ₁₇ H ₂₂ N ₄ O ₂
Mol. Wt	314.38
Purity	≥98%
CAS NO.	144875-48-9
Form and storage	Powder. Store at -20C.
Shipping	Shipped at 4° C
Solubility	DMSO: upto10 mg/mL also soluble in water or buffers.

General references: Expert Opin Investig Drugs. 2013, 22, 149-59; Miyamoto et al (2012) Cytotechnology. 2012; 64:331-9; Ahmad G (2010) Int J Infect Dis.14, 781-787; Zhang WW (2008) Inf. Immunol. 76, 3777-3783; Jurk M (2002) Nat. Immunol. 6, 499; Arias AM (2012) PLoS One 7, e4144.

Related Items:

SIODN-1	Inhibitory iODN- class I/II hybrid, may also affect TLR7 and TLR8 signaling.
ODN006-1	ODNBW006 Type B CpG ODN structure feature at the 5' and A-type CpG ODN structure feature at the 3' end
ODN1668-1	ODN 1668-Type B murine TLR9 Agonist-Antigen grade
ODN1668-1NC	ODN 1668- Type B murine TLR9 Agonist (Negative Control), antigen grade
ODN1826-1	ODN 1826- Type B murine TLR9 Agonist-antigen grade
ODN2006-1	ODN 2006 -Type B-human TLR9 agonist-antigen grade
ODN2007-1 grade	ODN 2007-Type B bovine/porcineTLR9 agonist-antigen grade
ODN2216-1	ODN 2216-Type A human TLR9 Agonist.-antigen grade
ODN2395-5 grade	ODN 2395-Type C human/murine TLR9 agonist-antigen grade
ODN4084F-1 grade	ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
ODN4084F-5 grade	ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
ODNTT-1NC antigen grade	ODN TTAGGG-Class G Human-TLR 9 Antagonist,

R848

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