



Resiquimod (R848)

Data Sheet

Catalog Number:	MC11083	Product Type:	Small Molecule
Bio-Activity:	Toll-like receptor 7/8 agonist; Immunostimulant	CAS #:	144875-48-9
Research Categories:	Immunology, cancer, infectious disease	Chemical Name:	1-[4-Amino-2-ethoxymethyl]-1H-imidazo[4,5-c]quinolin-1-yl]-2-methylpropan-2-ol
Solubility:	Soluble in DMSO (up to 30 mg/ml) or in Ethanol (up to 15 mg/ml with warming)	Molecular Formula:	C17H22N4O2
Purity:	> 98%	Molecular Weight:	314.38
Format:	Powder	Ship Temp:	Ambient
Storage:	-20°C		

Application Notes

Description/Data:

A Toll-like receptor 7/8 agonist [1]. May be used as an immune adjuvant in cancer vaccines [2]. Resiquimod-carrying synthetic vaccine particles augment the immune response to encapsulated antigen and exhibit strong local immune activation without inducing systemic cytokine release [3]. Topical treatment of wild-type mice induces systemic autoimmune disease which may be used as a model of systemic Lupus erythematosus [4]. Effect on stem cells depends on cell type [5,6].

References:

- 1) Jurk et al. (2002), Human TLR7 or TLR8 independently confer responsiveness to the antiviral compound R-848; *Nat. Immunol.*, 3 499
- 2) Sabado et al. (2015), Resiquimod as an immunologic adjuvant for NY-ESO-1 protein vaccination in patients with high-risk melanoma; *Cancer Immunol. Res.*, 3 278
- 3) Ilyinskii et al. (2014), Adjuvant-carrying synthetic vaccine particles augment the immune response to encapsulated antigen and exhibit strong local immune activation without inducing systemic cytokine release; *Vaccine*, 32 2882
- 4) Yokogawa et al. (2014), Epicutaneous application of toll-like receptor 7 agonists leads to systemic autoimmunity in wild-type mice: a new model of systemic Lupus erythematosus.; *Arthritis Rheumatol.*, 66 694

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5) M Sioud & Y Fløisand Eur. J. Immunol. 2007 37:2834

6) A Miyamoto et al. Cytotechnology 2012 64:331

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