

## Catalog # 10-3780 Loxoribine

CAS# 121288-39-9 7-Allyl-7,8-dihydro-8-oxoguanosine RWJ-21757 Lot # X109527

Toll-like receptor 7 (TLR7) agonist.<sup>1</sup> A potent immunostimulant with a relatively broad spectrum of immunobiological activities including upregulation of the activity of B cells, T cells, NK cells, macrophages and LAK cells.<sup>2</sup> Induces secretion of IFN-γ by NK cells.<sup>3</sup> Inhibits influenza A infection in chickens.<sup>4</sup> Induces tumor regression by reversing Treg-induced immunosuppression.<sup>5</sup>

- 1) Heil et al. (2003), The Tool-like receptor 7 (TLR7)-specific stimulus loxoribine uncovers a strong relationship within the TLR7, 8 and 9 subfamily; Eur. J. Immunol., 33 2987
- 2) Goodman et al. (1995), A new approach to vaccine adjuvants. Immunopotentiation by intracellular T-helper-like signals transmitted by loxoribine Pharm. Biotechnol.. 6 581
- 3) Girart et al. (2007), Engagement of TLR3, TLR7 and NKG2D regulate IFN-gamma secretion but not NKG2D-mediated cytotoxicy by human NK cells stimulated with suboptimal doses of IL-12; J. Immunol., 179 3472
- 4) Stewart et al. (2012), Toll-like receptor 7 ligands inhibit influenza A infection in chickens; J. Interferon Cytokine Res,, 32 46
- 5) Wang et al. (2015), The TLR7 agonist induces tumor regression both by promoting CD4-T cells proliferation and by reversing T regulatory cell-mediated suppression via dendritic cells; Oncotarget, 6 1779

## **PHYSICAL DATA**

 $\begin{array}{lll} \mbox{Molecular Weight:} & 339.30 \\ \mbox{Molecular Formula:} & C_{13}H_{17}N_5O_6 \\ \mbox{Purity:} & 96\% \mbox{ by TLC} \end{array}$ 

NMR: (Conforms)

Solubility: DMSO (up to 25 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO may be stored at -20°C for up to 3 months.

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