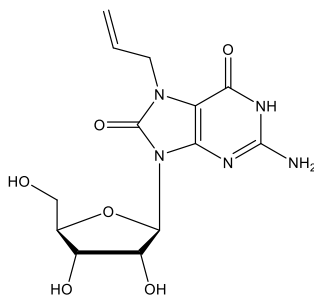**Catalog # 10-3780**
Loxoribine
CAS# 121288-39-9
7-Allyl-7,8-dihydro-8-oxoguanosine
RWJ-21757
Lot # X109527

Toll-like receptor 7 (TLR7) agonist.[1] 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.[2] Induces secretion of IFN-γ by NK cells.[3] Inhibits influenza A infection in chickens.[4] Induces tumor regression by reversing Treg-induced immunosuppression.[5]

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 cytotoxicity 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

Molecular Weight: 339.30
Molecular Formula: $C_{13}H_{17}N_5O_6$
Purity: 96% by TLC
                                    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.