

Product Name	: Loxoribine
Synonyms	: 7-Allyl-8-oxoguanosine, RWJ 21757
Cat No.	: M22620
CAS Number	: 121288-39-9
Molecular Formula	: C ₁₃ H ₁₇ N ₅ O ₆
Formula Weight	: 339.3
Chemical Name	: —
Description	<p>Loxoribine is a guanosine analog. Loxoribine is an orally bioavailable and selective Toll-like receptor (TLR) 7 agonist. It has anti-viral and anti-tumor activities. Loxoribine is a potent new immunostimulant with a relatively broad spectrum of immunobiological activities. Loxoribine activates cells of the innate immune system selectively via the Toll-like receptor (TLR) 7/MyD88-dependent signaling pathway. Loxoribine causes maturation of human monocyte-derived dendritic cells DCs and stimulates their Th-1- and Th-17-polarizing capability. Loxoribine (250 μM; 48 hours) stimulates maturation of MoDCs as shown by up-regulation of CD80, CD83, CD40, CD54, and CCR7. In vivo, Loxoribine (2 mg; s.c. or i.v.) activates murine natural killer (NK) cells.</p>
Pathway	: Immunology/Inflammation
Target	: TLR
Receptor	: TLR7
Solubility	: —
SMILES	: <chem>Nc1nc2n([C@@H]3O[C@H](CO)[C@@H](O)[C@H]3O)c(=O)n(CC=C)c2c(=O)[nH]1</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1. Heil F, et al. The Toll-like receptor 7 (TLR7)-specific stimulus loxoribine uncovers a strong relationship within the TLR7, 8 and 9 subfamily. Eur J Immunol. 2003 Nov;33(11):2987-97.