



LKT Laboratories, Inc.

RN-486

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## Product Information

Product ID R5212

CAS No. 1242156-23-5

### Chemical Name

Synonym RN486

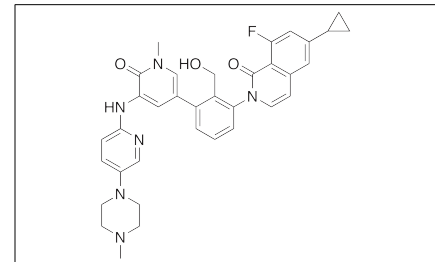
Formula  $C_{35}H_{35}FN_6O_3$

Formula Wt. 606.69

Melting Point

Purity  $\geq 98\%$

Solubility DMSO: 24 mg/mL



## Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
R5212	1 mg	\$266.40
R5212	5 mg	\$402.70

Store Temp -20°C

Ship Temp Ambient

**Description** RN-486 is an inhibitor of Bruton's tyrosine kinase (Btk) that is currently in development as a potential treatment for rheumatoid arthritis; it exhibits anti-inflammatory, nephroprotective, and immunosuppressive activities. RN-486 decreases production of IL-6 and expression of IL-8, TNF, MMP1, and MMP10 in synovial tissue. In animal models of systemic lupus erythematosus (SLE), RN-486 inhibits B-cell activation and anti-double-stranded DNA IgG production, suppressing progression of glomerulonephritis. In other animal models, this compound inhibits mast cell degranulation, preventing type I and III hypersensitivity responses and limiting joint and systemic inflammation. RN-486 also decreases TLR-9 signaling and cytokine production.

**References** Zhao X, Huang W, Wang Y, et al. Discovery of novel Bruton's tyrosine kinase (BTK) inhibitors bearing a pyrrolo[2,3-d]pyrimidine scaffold. *Bioorg Med Chem.* 2015 Feb 15;23(4):891-901. PMID: 25596757.

Hartkamp LM, Fine JS, van Es IE, et al. Btk inhibition suppresses agonist-induced human macrophage activation and inflammatory gene expression in RA synovial tissue explants. *Ann Rheum Dis.* 2014 Apr 24. [Epub ahead of print]. PMID: 24764451.

Wang J, Lau KY, Jung J, et al. Bruton's tyrosine kinase regulates TLR9 but not TLR7 signaling in human plasmacytoid dendritic cells. *Eur J Immunol.* 2014 Apr;44(4):1130-6. PMID: 24375473.

Xu D, Kim Y, Postelnek J, et al. RN486, a selective Bruton's tyrosine kinase inhibitor, abrogates immune hypersensitivity responses and arthritis in rodents. *J Pharmacol Exp Ther.* 2012 Apr;341(1):90-103. PMID: 22228807.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.