

Name: JNJ-2113; JNJ-77242113;

Cat#: EX-A9714

Target:: Interleukin Related; STAT

Pathway: Immunology/Inflammation; JAK/STAT Signaling; Stem Cell/Wnt

Chemical Structure:

Chemical Name	Glycinamide, N-acetyl-3-mercapto-L-valyl-L-asparaginyl-L-threonyl-7-methyl-L-tryptophyl-N6-acetyl-L-lysyl-3-mercapto-L-valyl-O-(2-aminoethyl)-L-tyrosyl-3-(2-naphthalenyl)-L-alanyl-4-aminotetrahydro-2H-pyran-4-carbonyl-L- α -glutamyl-L-asparaginyl-3-(3-pyridinyl)-L-alanyl-N2-methyl-, cyclic (1 \rightarrow 6)-disulfide
Sequence:	Ac-Pen-Asn-Thr-Trp(7-Me)-Lys(Ac)-Pen-Phe(4-amino ethoxy)-2Nal-ThpGly-Glu-Asn-3Pal-Sar-NH2 (Pen1&Pen6 bridge)

Molecular Weight	1898.167	Ctorage	3 years -20°C powder
Formula	C90H120N20O22S2	Storage	6 months -80°C in solvent Away from light
CAS No.	2763602-16-8	Synonyms	Icotrokinra; JNJ-77242113;PN-235



Solubility	In vitro	DMSO	Soluble, >50mg/mL (Need ultrasonic)
		Ethanol	N/A
(25°C) *		Water	N/A
	In vivo (should be freshly prepared each time)		

- * <1 mg/ml means slightly soluble or insoluble.
- * Please note that Selleck tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.

Preparing Stock Solutions:

Mass	1 mg	5 mg	10 mg
Volume Concentration			
1 mM	0.5268 mL	2.6341 mL	5.2682 mL
5 mM	0.1054 mL	0.5268 mL	1.0536 mL
10 mM	0.0527 mL	0.2634 mL	0.5268 mL

^{*}The above data is based on the product molecular weight 1898.17.

Biological Activities:

Description	JNJ-2113(Icotrokinra; JNJ-77242113) is an orally available, selective antagonist of the IL-23 receptor. JNJ-2113 inhibits IL-23-induced STAT3 phosphorylation in peripheral blood mononuclear cells (IC50=5.6 pM) and inhibits IL-23-induced interferon IFN- γ production in NK cells with an IC50 of 18.4 pM. In addition, JNJ-2113 exhibits anti-inflammatory activity in a rat TNBS-induced colitis model. JNJ-2113 can be used in the study of psoriasis, psoriatic arthritis, and inflammatory bowel disease ^[1] .
IC₅₀ & Targe	IL-23 7.1 pM (Kd)
In Vitro	JNJ-2113 (0.03-10 mg/kg; p.o.; once daily for 7 days) reduces the colon weight-to-length ratio and alleviates weight loss in rats with TNBS-induced colitis ^[1] . JNJ-2113 (1-30 mg/kg; p.o.; twice daily for 3 days) prevents IL-23-induced upregulation of IL-17A and IL-22 in a rat skin inflammation model at doses greater than 10 mg/kg ^[1] .





References

[1]. Fourie AM, et al., JNJ-77242113, a highly potent, selective peptide targeting the IL-23 receptor, provides robust IL-23 pathway inhibition upon oral dosing in rats and humans. Sci Rep. 2024 Jul 30;14(1):17515.