

Nemvaleukin alfa

Cat. No.:	HY-P99752
CAS No.:	2315268-27-8
Target:	Interleukin Related
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Nemvaleukin alfa (ALKS 4230) is a IL-2 fusion protein that selectively binds to intermediate-affinity IL-2R. Nemvaleukin alfa is an activator of NK and effector T cells. Nemvaleukin alfa can be used for research of cancer ^{[1][2][3]} .					
In Vitro	Nemvaleukin alfa activates lymphocyte subsets from cynomolgus monkey and human samples, with EC ₅₀ s of 0.45-2.2 nM ^[2] . Nemvaleukin alfa (0-100 nM, 30 min) induces the activation of intermediate-affinity IL-2R on human cells (HH cells) ^[3] . Nemvaleukin alfa (0-100 nM, 30 min) induces pSTAT5 in NK cells with an EC ₅₀ of 0.45 nM ^[3] . Nemvaleukin alfa (0.5 nM, 5 days) induces the activation of effector lymphocytes isolated from human peripheral blood ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.					
In Vivo	Nemvaleukin alfa (6 mg/kg, s.c., every 4 days) inhibits SCLC tumor growth in mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.					
	Animal Model:	SCLC orthotopic model ^[1]				
	Dosage:	6 mg/kg				
	Administration:	s.c., every 4 days				
	Result:	Delayed tumor growth and prolonged survival.				
	Animal Model:	Male cynomolgus monkeys (PK Assay) ^[2]				
	Dosage:	0.3 or 1 mg/kg				
	Administration:	i.v. or s.c.				
	Result:	Pharmacokinetic profile of Nemvaleukin alfa.				
		Dose Route	dose (mg/kg)	C _{max} (ng/mL)	T _{max} (h)	T _{1/2} (h)
		i.v.	0.3	6119	0.083	49.5

s.c.	0.3	549	8	61.9
s.c.	1	1035	8	37.3

REFERENCES

- [1]. Pan Y, et al, a novel engineered IL-2 fusion protein, drives antitumor immunity and inhibits tumor growth in small cell lung cancer. J Immunother Cancer. 2022 Sep;10(9):e004913.
- [2]. Lopes JE, et al. Pharmacokinetics and Pharmacodynamic Effects of Nemvaleukin Alfa, a Selective Agonist of the Intermediate-Affinity IL-2 Receptor, in Cynomolgus Monkeys. J Pharmacol Exp Ther. 2021 Nov;379(2):203-210.
- [3]. Lopes JE, et al. ALKS 4230: a novel engineered IL-2 fusion protein with an improved cellular selectivity profile for cancer immunotherapy. J Immunother Cancer. 2020 Apr;8(1):e000673.

Caution: Product has not been fully validated for medical applications. For research use only.

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