AGN194204

Cat. No.: HY-13717

CAS No.: 220619-73-8

Molecular Formula: $C_{24}H_{32}O_2$

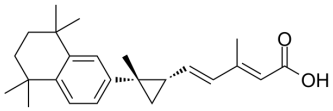
Molecular Weight: 352.51

Target: RAR/RXR; Apoptosis

Pathway: Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; Apoptosis

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 35 mg/mL (99.29 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8368 mL	14.1840 mL	28.3680 mL
	5 mM	0.5674 mL	2.8368 mL	5.6736 mL
	10 mM	0.2837 mL	1.4184 mL	2.8368 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

AGN194204 (IRX4204) is an orally active and selective RXR agonist with K_d values 0.4 nM, 3.6 nM and 3.8 nM and EC_{50}s of 0.2 nM, 0.8 nM and 0.08 nM for RXRα, RXRβ and RXRγ, respectively. AGN194204 is inactive against RAR. AGN194204 has anti-inflammatory and anticarcinogenic actions[1][2].

In Vitro

AGN194204 (NRX194204; 0-100 nM; 24 hours; E, RAW cells) treatment blocks the ability of lipopolysaccharide and tumor necrosis factor-α to induce the release of nitric oxide and interleukin 6 and the degradation of IKBα in RAW264.7 macrophage-like cells[1].

AGN194204 (NRX194204; 1 μM; 72 hours; SK-BR-3 human breast cancer cells) treatment induces apoptosis in breast cancer cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	SK-BR-3 human breast cancer cells
Concentration:	1 μM

Incubation Time:	72 hours
Result:	Induced apoptosis in lung and breast cancer cells.

Western Blot Analysis[1]

Cell Line:	E, RAW cells
Concentration:	0 nM, 1 nM, 10 nM and 100 nM
Incubation Time:	24 hours
Result:	Blocked the ability of lipopolysaccharide and tumor necrosis factor-α to induce the release of nitric oxide and interleukin 6 and the degradation of IKBα in RAW264.7 macrophage-like cells.

In Vivo

AGN194204 (NRX194204; 30-60 mg/kg; oral administration; daily; for 15 weeks; female A/J mice) treatment significantly reduces the number and size of tumors on the surface of the lungs and reduces the total tumor volume per slide by 64% to 81% compared with the control group[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female A/J mice with vinyl carbamate[1]
Dosage:	30 mg/kg, 60 mg/kg
Administration:	Oral administration; daily; for 15 weeks
Result:	Significantly reduced the number and size of tumors on the surface of the lungs and reduced the total tumor volume per slide by 64% to 81% compared with the control group.

REFERENCES

[1]. Liby K, et al. A new rexinoid, NRX194204, prevents carcinogenesis in both the lung and mammary gland. Clin Cancer Res. 2007 Oct 15;13(20):6237-43.

[2]. Vuligonda V, et al. Enantioselective syntheses of potent retinoid X receptor ligands: differential biological activities of individual antipodes. J Med Chem. 2001 Jul 5;44(14):2298-303.

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