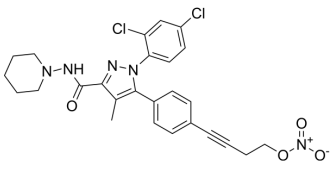
AM-6538

Cat. No.:	HY-120423
CAS No.:	1245626-00-9
Molecular Formula:	$C_{26}H_{25}Cl_2N_5O_4$
Molecular Weight:	542.41
Target:	Cannabinoid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
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 : 180 mg/mL (331.85 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8436 mL	9.2181 mL	18.4362 mL
	5 mM	0.3687 mL	1.8436 mL	3.6872 mL
	10 mM	0.1844 mL	0.9218 mL	1.8436 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 4.5 mg/mL (8.30 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.61 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AM6538 is a long-acting, high affinity and pseudo-irreversible cannabinoid (CB) antagonist. AM6538 is a structural analog of rimonabant. AM6538 can be effectively used to evaluate the apparent efficacy of cannabinoid full and partial agonists. AM6538 may be useful in future studies that require temporary reductions in cannabinoid receptor availability[1]. AM-6538 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC_{50} & Target

cannabinoid[1]

In Vitro

AM6538 is a cannabinoid antagonist that binds CB1 receptors expressed in HEK-293 cells in a wash-resistant manner[1].

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

In Vivo	AM6538 (1~10 mg/kg) antagonizes the antinociceptive effects of cannabinoid agonists in mice[1]. AM6538 (10 mg/kg) shows that there are some recovery in the effects of AM4054. AM6538 dose dependently decreases the tau values for all cannabinoid agonists, reflecting reductions in the available receptors. AM6538 produces enduring antagonism, with robust effects on the tetrahydrocannabinol dose-effect function evident up to 7 days after treatment[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Paronis CA, et al. Long-Lasting In Vivo Effects of the Cannabinoid CB1 Antagonist AM6538. J Pharmacol Exp Ther. 2018;364(3):485-493.

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