DMP-543

Cat. No.: HY-108590

CAS No.: 160588-45-4

Molecular Formula: $C_{26}H_{18}F_2N_2O$

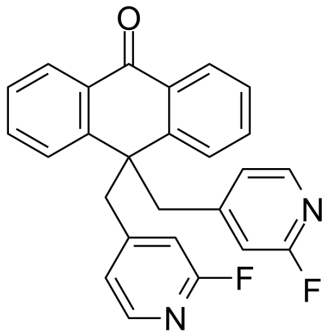
Molecular Weight: 412.43

Target: Potassium Channel

Pathway: Membrane Transporter/Ion Channel

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 : 100 mg/mL (242.47 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4247 mL	12.1233 mL	24.2465 mL
	5 mM	0.4849 mL	2.4247 mL	4.8493 mL
	10 mM	0.2425 mL	1.2123 mL	2.4247 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: 2.5 mg/mL (6.06 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (6.06 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

DMP-543 (XR-543) is a K_V7 channel blocker, also acts as a potent neurotransmitter release enhancer[1][2].

IC_{50} & Target

K_V7 channel

In Vitro

DMP-543 enhances [^{3}H]ACh release from rat brain slices, with an EC_{50} of 700 nM[2].

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

REFERENCES

[1]. Ipavec V, et al. KV7 channels regulate muscle tone and nonadrenergic noncholinergic relaxation of the rat gastric fundus. Pharmacol Res. 2011 Oct;64(4):397-409.

[2]. Zaczek R, et al. Two new potent neurotransmitter release enhancers, 10,10-bis(4-pyridinylmethyl)-9(10H)-anthracenone and 10,10-bis(2-fluoro-4-pyridinylmethyl)-9(10H)-anthracenone: comparison to linopirdine. J Pharmacol Exp Ther. 1998 May;285(2):724-30.

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