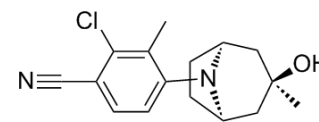


ACP-105

Cat. No.:	HY-112256		
CAS No.:	899821-23-9		
Molecular Formula:	C ₁₆ H ₁₉ ClN ₂ O		
Molecular Weight:	290.79		
Target:	Androgen Receptor		
Pathway:	Others		
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 : ≥ 103 mg/mL (354.21 mM)
 * "≥" means soluble, but saturation unknown.

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	3.4389 mL	17.1945 mL	34.3891 mL
5 mM	0.6878 mL	3.4389 mL	6.8778 mL
10 mM	0.3439 mL	1.7195 mL	3.4389 mL

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

BIOLOGICAL ACTIVITY

Description

ACP-105 is an orally available, selective and potent androgen receptor modulator (SARM), with pEC₅₀s of 9.0 and 9.3 for AR wild type and T877A mutant, respectively.

IC₅₀ & Target

pEC₅₀: 9.0 (AR wild type), 9.3 (AR T877A mutant)^[1].

In Vitro

ACP-105 is an orally available, selective and potent androgen receptor modulator (SARM), with pEC₅₀s of 9.0 and 9.3 for AR wild type and T877A mutant, respectively. The half-lives of ACP-105 (compound 1) in human hepatocytes is measured and found to be 5.0 h^[1].

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

In Vivo

ACP-105 enhances freezing in both sham-irradiated and irradiated mice (effect of ACP-105: F=5.44; p=0.028). For MAP-2 immunoreactivity in the cortex of sham-irradiated mice, there is a brain area×ACP-105 interaction (F=6.655; p=0.0027). While ACP-105 reduces MAP-2 immunoreactivity in the sensorymotor cortex, there is a trend towards increased MAP-2 immunoreactivity in the enthorhinal cortex^[2].

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PROTOCOL

Animal Administration [2]

Mice^[2]

Two-month-old C56Bl/6J female mice are kept on a 12:12 hr light-dark schedule (lights on at 6 AM) with lab chow and water given ad libitum. Following i.p. anesthesia (ketamine, 80 mg/kg and xylazine, 20 mg/kg), mice are sham-irradiated (n=7 sham vehicle-treated mice and n=7 ACP-105-treated mice) or irradiated (n=8 vehicle-treated mice and n=7 ACP-105-treated mice) using a dose of 10 Gy in a Mark 1 Cesium Irradiator. Twenty-four hours following irradiation, the mice are implanted with Alzet minipumps filled with ACP-105 at 1 mg/kg/day or 1.09 mg/200 µL in 10% Tween in saline or vehicle. Behavioral testing starts two weeks after irradiation. Mice receives three trials per day for three subsequent days. Mice are tested for fear conditioning in week 2. During contextual fear conditioning, mice learn to associate the environmental context with a mild foot shock. Contextual conditioned fear is assessed during the first 3 minutes of the contextual test trial when freezing behavior is most robust. Cued conditioned fear is assessed during the presentation of the tone (the last 3 minutes of the trial)^[2].

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

CUSTOMER VALIDATION

- Drug Test Anal. 2020 Aug 27.

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REFERENCES

[1]. Schlienger N, et al. Synthesis, structure-activity relationships, and characterization of novel nonsteroidal and selective androgen receptor modulators. *J Med Chem.* 2009 Nov 26;52(22):7186-91.

[2]. Dayger C, et al. Effects of the SARM ACP-105 on rotarod performance and cued fear conditioning in sham-irradiated and irradiated female mice. *Brain Res.* 2011 Mar 24;1381:134-40.

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

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