Acyline TFA

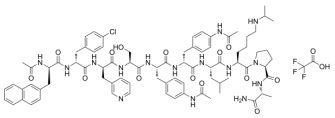
Cat. No.: HY-16027A

Molecular Formula: $C_{82}H_{103}ClF_3N_{15}O_{16}$

Molecular Weight: 1647.23

Target: GnRH Receptor

Pathway: GPCR/G Protein



Storage: Sealed storage, away from moisture and light, under nitrogen

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (60.71 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.6071 mL	3.0354 mL	6.0708 mL
	5 mM	0.1214 mL	0.6071 mL	1.2142 mL
	10 mM	0.0607 mL	0.3035 mL	0.6071 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 (1.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (1.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Acyline TFA, a GnRH peptide analogue, is a GnRH antagonist that inhibits gonadotropin and testosterone (T) levels[1].

In Vivo

Acyline (50 μg, s.c., twice daily, 5 days) TFA can result in disruption of vaginal oestrus and reduce uterine weights in female Kiss1$^{-/-}$and Gpr54$^{-/-}$ mice, as well as a decrease in luteinizing hormone (LH) concentrations of female Kiss1$^{-/-}$ mice[1].
Acyline (50 μg, s.c., once) TFA can reduce follicle stimulating hormone (FSH) concentrations from pre-acyline 1.51 ng/mL to post-acyline 1.27 ng/mL in male Kiss1$^{-/-}$ mice and from pre-acyline 2.87 ng/mL to post-acyline 1.95 ng/mL in male Gpr54$^{-/-}$ mice[1].

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

Animal Model:	Female Kiss1$^{-/-}$and Gpr54$^{-/-}$ mice[1]
Dosage:	50 μg (1 mg/mL in PBS)
Administration:	Subcutaneous injection; twice daily; 5 days
Result:	12 Kiss1$^{-/-}$ mice left oestrus within 4 days of 13 mice received acyline while only 2 of 17 mice received vehicle left oestrus. Also, 7 of 8 Gpr54$^{-/-}$ mice received acyline left oestrus compared to 1 of 7 received vehicle. Reduced uterine weights of Kiss1$^{-/-}$and Gpr54$^{-/-}$ mice in treated group compared to the vehicle group, and reduced serum LH concentrations in Kiss1$^{-/-}$ mice.

REFERENCES

[1]. Y M Chan, et al. Kisspeptin/Gpr54-independent gonadotrophin-releasing hormone activity in Kiss1 and Gpr54 mutant mice. J Neuroendocrinol. 2009 Dec;21(12):1015-23.

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