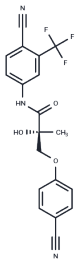
Data Sheet (Cat.No.T2408)

TargetMol

Ostarine

Chemical Properties



CAS No. : 841205-47-8

Formula: C19H14F3N3O3

Molecular Weight: 389.33

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Ostarine (MK-2866) is a non-steroidal agent with anabolic activity. Selective androgen receptor modulator (SARM) GTx-024 is designed to work like testosterone, thus promoting and/or maintaining libido, fertility, prostate growth, and muscle growth and strength. Mimicking testosterone's action, this agent may increase lean body mass, thereby ameliorating muscle wasting in the hypermetabolic state of cancer cachexia.
Targets(IC50)	Androgen Receptor
In vitro	Compared to any non-steroidal androgen receptor (AR) agonists, Ostarine exhibits the highest androgenic and anabolic activity in the body, particularly affecting the prostate, seminal vesicles, and levator ani muscle, with ED50 values of 0.12, 0.39, and 0.03 mg/day, respectively. This makes it four times more effective on the levator ani muscle than testosterone propionate. At a low dose of 0.03 mg/day, Ostarine demonstrates effective and selective activity in anabolic tissues. Following a single intravenous injection of 10 mg/kg, Ostarine presents a slow decline in plasma concentration with a longer half-life of 6 hours, compared to the 2.6-4.0 hours half-life when targeting other cyan/nitro substituted Selective Androgen Receptor Modulators (SARMs). In castrated male rats, Ostarine shows significant androgenic and anabolic activity, more effectively stimulating growth in the prostate, seminal vesicles, and levator ani muscle than other cyan/nitro substituted SARMs. Ostarine facilitated recovery of prostate weight by 39.2%, seminal vesicle weight by 78.8%, and notably stimulated levator ani muscle growth beyond other male organs to 141.9%.
In vivo	Ostarine (10 nM) modulates the transcriptional activity of the androgen receptor (AR) in CV-1 cells co-transfected with human androgen receptor expression vectors, luciferase reporter vectors, and β-galactosidase control vectors. Ostarine binds to the androgen receptor with the highest affinity among selective androgen receptor modulators (SARMs), exhibiting a Ki value of 3.8 nM.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 72 mg/mL (184.93 mM),Sonication is recommended. DMSO: 250 mg/mL (642.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.14 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5685 mL	12.8426 mL	25.6852 mL
5 mM	0.5137 mL	2.5685 mL	5.137 mL
10 mM	0.2569 mL	1.2843 mL	2.5685 mL
50 mM	0.0514 mL	0.2569 mL	0.5137 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kim J, et al. J Pharmacol Exp Ther, 2005, 315(1), 230-239.
Duke CB, et al. J Med Chem, 2011, 54(11), 3973-3976.