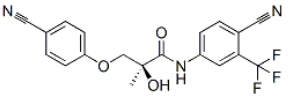
Ostarine(MK-2866) Datasheet

Technical Data

Molecular Weight (MW)	389.33
Formula	$C_{19}H_{14}F_3N_3O_3$
CAS No.	841205-47-8, 1235370-13-4
Synonyms	GTx-024, MK-2866

Solubility (25°C)	DMSO 78 mg/mL		
	Water <1 mg/mL		
	Ethanol 78 mg/mL		
Storage	4 years	-20°C	Powder
	2 weeks	4°C	in DMSO
	6 months	-80°C	in DMSO

Ostarine(MK-2866) Chemical Structure



Biological Activity

Description	Ostarine (GTx-024, MK-2866, Enobosarm, S-22) is a **selective androgen receptor modulator (SARM)** with **K_i** of 3.8 nM.
Targets	Androgen receptor (AR)
IC50	3.8 nM (K_i) [1]
In vitro	Ostarine at the concentration of 10 nM modulates the transcriptional activity of AR in CV-1 cells cotransfected with a human AR expression vector, a luciferase reporter vector, and a control β-galactosidase vector, with 94%-100% relative activity of the transcriptional activation observed for 1 nM DHT. [1] [2]
In vivo	After intravenous administration of Ostarine at a single dose of 10 mg/kg, plasma concentration of Ostarine declines slowly, exhibiting a longer terminal half-life of 6.0 hours, as compared to that of other related cyano/nitro group-substituted SARMs with terminal halflives of 2.6-4.0 hours. Ostarine exhibits significantly androgenic and anabolic activity by stimulating the growth of prostate, seminal vesicles, and levator ani muscle when administered in castrated male rats; Ostarine is more potent than other cyano/nitro group-substituted SARMs. Ostarine restores the weight of the prostate to 39.2%, and seminal vesicle 78.8%, and stimulates the growth of levator ani muscle to a greater extent of 141.9% as compared with that of androgenic organs. Ostarine exhibits the highest in vivo androgenic and anabolic activity of any AR nonsteroidal agonist examined to date, with ED50 values of 0.12, 0.39 and 0.03 mg/day in prostate, seminal vesicles, and levator ani muscle, respectively, being 4 times as potent as testosterone propionate (TP) in levator ani muscle. At low dose of 0.03 mg/day, Ostarine is sufficient to exert efficacious and selective activity in anabolic tissues. [1]
Clinical Trials	Currently under Phase III study to determine if the investigational drug Ostarine can help patients with non small cell lung cancer increase physical function and maintain or gain muscle.
Features	Ostarine has the most potent and tissue-selective in vivo activity of SARMs to date and favorable pharmacokinetic properties.

Protocol (Only for Reference)

Kinase Assay: [1]

In vitro competitive radioligand binding assay	The AR binding affinity of Ostarine is determined using an in vitro competitive radioligand binding assay with [^{3}H]mibolerone (MIB). Briefly, increasing concentrations (0.01-5000 nM) of Ostarine are incubated with rat cytosol, a saturating concentration of [^{3}H]-MIB (1 nM), and 1000 nM triamcinolone acetonide to prevent interaction of MIB with progesterone receptors at 4 °C for 18 hours. At the end of incubation, free and bound [^{3}H]-MIB are separated using the hydroxyapatite method. IC50 value is determined by computer-fitting the data for each ligand by nonlinear regression analysis.

Animal Study:[1]

Animal Models	Immature castrated male Sprague-Dawley rats
Formulation	Dissolved in DMSO, and diluted in saline
Doses	1 mg/day
Administration	Subcutaneous injection

References

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

PLEASE KEEP THE PRODUCT UNDER -20°C FOR LONG-TERM STORAGE.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE

Return Policy

We hope this product has arrived safely with our courier. If there is a problem with your product, please contact us.

We accept returns as long as less than 20% of the product has been used and there is a problem with the substance.

We do not accept returns because of miss ordering for safety reasons.

Orders & Support

support@maxmusclelabs.com

We will contact you within one business day

Website:

maxmusclelabs.com