# S-23

**Cat. No.:** HY-112257

**CAS No.:** 1010396-29-8

**Molecular Formula:** $C_{18}H_{13}ClF_4N_2O_3$

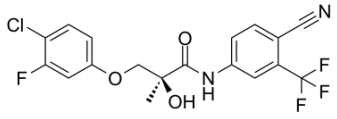
**Molecular Weight:** 416.75

**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 : 100 mg/mL (239.95 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.3995 mL | 11.9976 mL | 23.9952 mL |
| 5 mM | 0.4799 mL | 2.3995 mL | 4.7990 mL |
| 10 mM | 0.2400 mL | 1.1998 mL | 2.3995 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

S-23 is an orally active selective androgen receptor modulator (SARM) with a $K_i$ of 1.7 nM. S-23 induces androgen receptor (AR)-mediated transcriptional activation in CV-1 cells. S-23 increases prostate, seminal vesicle, and levator ani muscle weights in castrated rats[1][2].

**$IC_{50}$ & Target**

Ki: 1.7 nM (Androgen receptor)[1]

**In Vitro**

S-23 induces AR-mediated transcriptional activation in CV-1 cells when used at a concentration of 10 nM[1].

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

**In Vivo**

By administration of S-23 to castrated animals, androgen-dependent organ weights increased in a dose-dependent manner. The $ED_{50}$ of S-23 in the prostate and levator ani muscle is 0.43 and 0.079 mg/d, respectively[1].

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| | |
|---|---|
| Animal Model: | Male Sprague Dawley rats (in castrated male rats)[1] |

| | |
|---|---|
| Dosage: | 0.01-3 mg |
| Administration: | S.c.; daily for 14 d |
| Result: | Androgen-dependent organ weights increased in a dose-dependent manner. At a dose rate as low as 0.1 mg/d, S-23 is able to selectively maintain the weight of the levator ani muscle at the intact control level, whereas its effects on the prostate and seminal vesicles are lower than 30% of those observed in intact controls. |

## REFERENCES


[1]. Jones A, et al. Preclinical characterization of a (S)-N-(4-cyano-3-trifluoromethyl-phenyl)-3-(3-fluoro, 4-chlorophenoxy)-2-hydroxy-2-methyl-propanamide: a selective androgen receptor modulator for hormonal male contraception. Endocrinology. 2009;150(1):385-395.

[2]. Thevis M, et al. Characterization of in vitro generated metabolites of the selective androgen receptor modulators S-22 and S-23 and in vivo comparison to post-administration canine urine specimens. Drug Test Anal. 2010;2(11-12):589-598.



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



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