Flutamide

Cat. No.: HY-B0022

CAS No.: 13311-84-7

Molecular Formula: $C_{11}H_{11}F_3N_2O_3$

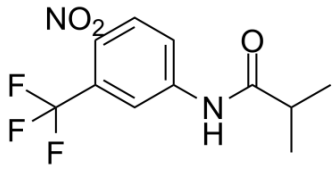
Molecular Weight: 276.21

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 (362.04 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6204 mL	18.1022 mL	36.2043 mL
5 mM	0.7241 mL	3.6204 mL	7.2409 mL
10 mM	0.3620 mL	1.8102 mL	3.6204 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 (9.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Flutamide is an antiandrogen drug, with its active metablolite binding at androgen receptor with Ki values of 55 nM, and primarily used to treat prostate cancer.Target: androgen receptor in vitro: Flutamide (Eulexin) is an antiandrogen drug. Flutamide-OH, the active metabolite of flutamide, directly binds at rat anterior pituitary androgen receptor with Ki values of 55 nM [1]. lutamide does not affect the proliferation of an androgen-sensitive clone of the mouse mammary carcinoma Shionogi SC-l 15 cells in culture, shows only antiandrogenic effect, but not androgenic effect [2]. Flutamide provides

treatment for prostate cancer when used along with leuprolide [3].in vivo: Flutamide causes a markedly reduction in rat ventral prostate weight from 319 mg to 245 mg. A combination of flutamide and LHRH agonist induces an additive effect with a decrease in prostate weight to 101 mg, and an marked drop in prostatic ODC activity [4].

CUSTOMER VALIDATION

- Acta Pharmacol Sin. 2021 Jan;42(1):108-114.
- Ecotox Environ Safe. 2021, 111991.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Simard J, et al. Characteristics of interaction of the antiandrogen flutamide with the androgen receptor in various target tissues. Mol Cell Endocrinol. 1986 Mar;44(3):261-70.

[2]. Luthy IA, et al. Androgenic activity of synthetic progestins and spironolactone in androgen-sensitive mouse mammary carcinoma (Shionogi) cells in culture. J Steroid Biochem. 1988 Nov;31(5):845-52.

[3]. Crawford ED, et al. A controlled trial of leuprolide with and without flutamide in prostatic carcinoma. N Engl J Med. 1989 Aug 17;321(7):419-24.

[4]. Marchetti B, et al. Characteristics of flutamide action on prostatic and testicular functions in the rat. J Steroid Biochem. 1988 Jun;29(6):691-8.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA