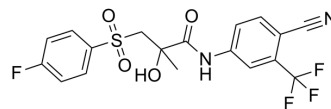


Bicalutamide

Cat. No.:	HY-14249		
CAS No.:	90357-06-5		
Molecular Formula:	C ₁₈ H ₁₄ F ₄ N ₂ O ₄ S		
Molecular Weight:	430.37		
Target:	Autophagy; Androgen Receptor		
Pathway:	Autophagy; Vitamin D Related/Nuclear Receptor		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (116.18 mM)
 * "≥" means soluble, but saturation unknown.

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.3236 mL	11.6179 mL	23.2358 mL
5 mM	0.4647 mL	2.3236 mL	4.6472 mL
10 mM	0.2324 mL	1.1618 mL	2.3236 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (5.81 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (5.81 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (5.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Bicalutamide is an orally active non-steroidal androgen receptor (AR) antagonist. Bicalutamide can be used for the research of prostate cancer^[1].

IC₅₀ & Target

Androgen receptor^[1]

In Vitro

Bicalutamide competes with androgens for binding AR in in a whole-cell binding-assay (LNCaP/AR(cs) cells), with an IC₅₀ of

160 nM^[1].

Bicalutamide induces proliferation of VCaP cells in a dose-dependent manner, whereas partially antagonizes the effects of R1881 (synthetic androgen)^[1].

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

In Vivo

Bicalutamide (10 mg/kg; i.g.; daily; for 28 days) exhibits anti-tumor activity in prostate cancer mice model^[1].

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

Animal Model:	Castrate male mice, bearing LNCaP/AR(cs) xenograft tumors ^[1]
Dosage:	10 mg/kg
Administration:	Oral gavage, daily, for 28 days
Result:	Inhibited tumors growth.

CUSTOMER VALIDATION

- Nucleic Acids Res. 2022 Aug 31;gkac737.
- Biomaterials. 16 September 2022.
- Cell Death Dis. 2021 Jul 27;12(8):740.
- J Drug Deliv Sci Technol. 2021, 102340.
- Sci Rep. 2017 Jun 8;7(1):3058.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Nicola J. Clegg,¹ John Wongvipat,^{1,2} Jim Joseph, ARN-509: a novel anti-androgen for prostate cancer treatment. Cancer Res. 2012 March 15; 72(6): 1494-1503.

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

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