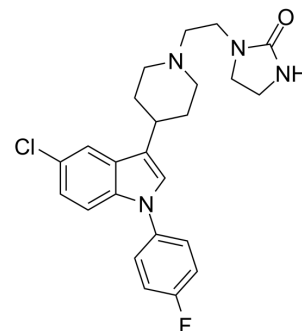


Sertindole

Cat. No.:	HY-14543		
CAS No.:	106516-24-9		
Molecular Formula:	C ₂₄ H ₂₆ ClFN ₄ O		
Molecular Weight:	440.94		
Target:	5-HT Receptor; Dopamine Receptor; Autophagy; Adrenergic Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling; Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (56.70 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
	Preparing Stock Solutions	1 mM	2.2679 mL	11.3394 mL
		5 mM	0.4536 mL	2.2679 mL
		10 mM	0.2268 mL	1.1339 mL
	Please refer to the solubility information to select the appropriate solvent.			
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.67 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.67 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.67 mM); Clear solution 			

BIOLOGICAL ACTIVITY

Description	Sertindole (Lu 23-174) is an orally active 5-HT _{2A} , 5-HT _{2C} , dopamine D ₂ , and α ₁ -adrenergic receptors antagonist. Sertindole shows antipsychotic activity and anti-proliferative activity to multiple cancer cells ^{[1][2][3]} .	
IC₅₀ & Target	5-HT _{2A} Receptor	5-HT _{2C} Receptor
In Vitro	Sertindole (0-100 μM; 48 h) attenuates proliferation of breast cancer cells ^[2] . Sertindole (0.8-27.6 μM; 48 h) inhibits proliferation toward many cancers in vitro ^[2] .	

Sertindole (5 μM and 10 μM ; 24 h) attenuates migration of breast cancer cells^[2].

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

Cell Proliferation Assay^[2]

Cell Line:	SUM159 and MCF-10A cells
Concentration:	0-100 μM
Incubation Time:	48 hours
Result:	Showed IC ₅₀ s of 9.2 μM and 27.6 μM for SUM159 and MCF-10A cells, respectively.

Cell Proliferation Assay^[2]

Cell Line:	NCI-H460, A549, NCI-H446, NCI-H661, 801-D, U251, A172, U118-MG, U87-MG, AGS, MKN45, BGC-823, SGC-7901, HT-29, COLO205, SW480, SW620, HCT-15, HepG2, Bel-7402, MCF-7, MDA-MB-231, SUM159, T47D, MDA-MB-453, ZR-75-1, CCRF-CEM, K562, Jurkat, MCF-10A cells
Concentration:	0.8-27.6 μM
Incubation Time:	48 hours
Result:	Showed IC ₅₀ s ranging between 0.8-12.7 μM , 2.7-4.6 μM , 12.7-15.3 μM and 8.6-16.1 μM for breast cancer, leukemia, hepatoma and glioblastoma lines, respectively.

Cell Migration Assay^[2]

Cell Line:	SUM159 cells
Concentration:	5 μM and 10 μM
Incubation Time:	24 hours
Result:	Blocked around 50% cells traversing the membranes at 5 μM , and almost all the cells lost traversing ability at 10 μM . Elevated LC3II conversion significantly ($P < 0.01$).

In Vivo

Sertindole (oral gavage; 10 mg/kg; once daily; 12 d) shows anti-tumor activity in vivo^[2].

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

Animal Model:	Immune-deficient Balb/c mice implanted MDA-MB-231 human TNBC cells ^[2]
Dosage:	10 mg/kg
Administration:	Oral gavage; 10 mg/kg; once daily; 12 days
Result:	Exhibited a 22.7% reduction in size after a 12-day administration regimen.

CUSTOMER VALIDATION

- Microsyst Nanoeng. 2022 May 9;8:49.
- ACS Omega. 2023 Feb 2; 8 (6), 5415-5425.

REFERENCES

- [1]. David Murdoch, et al. Sertindole : a review of its use in schizophrenia. CNS Drugs. 2006;20(3):233-55.
- [2]. Wei Zhang, et al. Antiproliferative activities of the second-generation antipsychotic drug sertindole against breast cancers with a potential application for treatment of breast-to-brain metastases. Sci Rep. 2018 Oct 25;8(1):15753.
- [3]. Mario F Juruena, et al. Sertindole in the management of schizophrenia. J Cent Nerv Syst Dis. 2011 May 17;3:75-85.
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Caution: Product has not been fully validated for medical applications. For research use only.

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