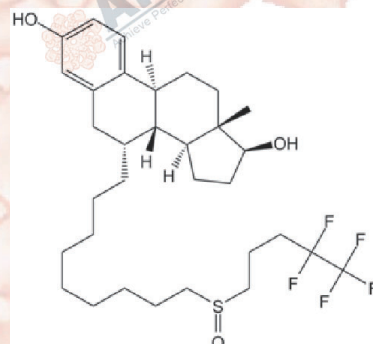


Product Data Sheet

Fulvestrant (ICI 182,780)

Cat. No.:	A1428
CAS No.:	129453-61-8
Formula:	C32H47F5O3S
M.Wt:	606.77
Synonyms:	
Target:	Endocrinology and Hormones
Pathway:	Estrogen/progestogen Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥30.35 mg/mL in DMSO; insoluble in H₂O; ≥58.9 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass Concentration	1mg	5mg	10mg
			1mM	5mM	10mM
			1.6481 mL	8.2404 mL	16.4807 mL
			0.3296 mL	1.6481 mL	3.2961 mL
			0.1648 mL	0.8240 mL	1.6481 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Estrogen receptor antagonist, high affinity

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: T47D and MCF7 breast cancer cell lines

Preparation method:

The solubility of this compound in DMSO is >30.3mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions:

1 μM, 10 μM, 66 h

	Applications:	Treatment of ER+ human breast cancer cell lines, MCF7 and T47D cells with fulvestrant caused a significant decrease in MDM2 protein expression. Treatment with fulvestrant for 16 h or 66 h does not alter MDM2 mRNA level. Fulvestrant (1 μ M, 16 h) facilitated degradation of MDM2 protein and shortened half-life of this protein (27 min vs. 42 min in T47D cells; 80 min vs. 180 min in MCF7 cells). Treatment with fulvestrant (5 μ M, 72 h) increased the G1 population.
In Vivo	Animal experiment	
	Animal models:	Nude mice bearing MCF-7 and Br10 human breast cancers
	Dosage form:	s.c. injection; 5 mg; 4 weeks
	Applications:	Fulvestrant substantially reduced tumor growth.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

- Bai Y, Shen W, et al. "Combined detection of estrogen and tumor markers is an important reference factor in the diagnosis and prognosis of lung cancer." J Cell Biochem. 2018 Sep 14. PMID:30216488
- McDermott MS, Chumanevich AA, et al. "Inhibition of CDK8 mediator kinase suppresses estrogen dependent transcription and the growth of estrogen receptor positive breast cancer." Oncotarget. 2017 Feb 21;8(8):12558-12575. PMID:28147342
- Li, Han, et al. "Triptolide inhibits human breast cancer MCF-7 cell growth via downregulation of the ER α -mediated signaling pathway." Acta Pharmacologica Sinica (2015). PMID:25864647

See more customer validations on www.apexbt.com.

References

- [1]. Dolfi SC1, Jger AV2, Medina DJ1, Haffty BG3, Yang JM4, Hirshfield KM5. Fulvestrant treatment alters MDM2 protein turnover and sensitivity of human breast carcinoma cells to chemotherapeutic drugs. Cancer Lett. 2014 Apr 18. pii: S0304-3835(14)00215-8.
- [2]. Wakeling A E, Dukes M, Bowler J. A potent specific pure antiestrogen with clinical potential[J]. Cancer research, 1991, 51(15): 3867-3873.
- [3]. Howell A, Robertson J F R, Quaresma Albano J, et al. Fulvestrant, formerly ICI 182,780, is as effective as anastrozole in postmenopausal women with advanced breast cancer progressing after prior endocrine treatment[J]. Journal of Clinical Oncology, 2002, 20(16): 3396-3403.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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