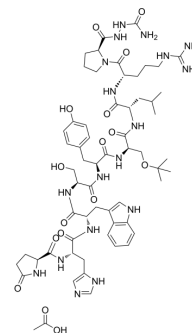


Goserelin acetate

Cat. No.:	HY-13673A
CAS No.:	145781-92-6
Molecular Formula:	C ₆₁ H ₈₈ N ₁₈ O ₁₆
Molecular Weight:	1329.46
Target:	GnRH Receptor; Apoptosis
Pathway:	GPCR/G Protein; Apoptosis
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (75.22 mM; Need ultrasonic)

DMSO : ≥ 28 mg/mL (21.06 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.7522 mL	3.7609 mL	7.5219 mL
	5 mM	0.1504 mL	0.7522 mL	1.5044 mL
	10 mM	0.0752 mL	0.3761 mL	0.7522 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 50 mg/mL (37.61 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (1.56 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (1.56 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: 2.08 mg/mL (1.56 mM); Clear solution; Need warming

BIOLOGICAL ACTIVITY

Description

Goserelin acetate (ICI-118630 acetate), a decapeptide analogue of gonadotropin-releasing hormone (GnRH/LHRH), functions as a GnRH agonist. Goserelin acetate can be used for the research of breast cancer, epithelial ovarian cancer and prostate cancer^{[1][2]}.

IC ₅₀ & Target	GnRH ^[1]								
In Vitro	<p>Goserelin (1 nM-1 mM; 48-72 hours) promotes EOC cell apoptosis^[1].</p> <p>Goserelin (100 μM; 24-72 hours) regulates the expression of human apoptosis-related genes in SKOV3-ip cells^[1].</p> <p>Goserelin (100 μM; 24-72 hours) promotes EOC cell apoptosis by upregulating FOXO1 through the PI3K/AKT signaling pathway^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Apoptosis Analysis^[1]</p>								
	<table border="1"> <tr> <td data-bbox="345 436 613 470">Cell Line:</td> <td data-bbox="638 436 1515 470">SKOV3 cells, SKOV3-ip cells, A2780 cells (human EOC cell lines)</td> </tr> </table>	Cell Line:	SKOV3 cells, SKOV3-ip cells, A2780 cells (human EOC cell lines)						
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	<p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td data-bbox="345 743 613 777">Cell Line:</td> <td data-bbox="638 743 1515 777">SKOV3 cells, SKOV3-ip cells, A2780 cells (human EOC cell lines)</td> </tr> <tr> <td data-bbox="345 798 613 831">Concentration:</td> <td data-bbox="638 798 1515 831">1 nM, 10 nM, 100 nM, 1 μM, 10 μM, 100 μM, 1 mM</td> </tr> <tr> <td data-bbox="345 852 613 886">Incubation Time:</td> <td data-bbox="638 852 1515 886">48 hours, 72 hours</td> </tr> <tr> <td data-bbox="345 907 613 982">Result:</td> <td data-bbox="638 907 1515 982">The expression of cleaved-caspase-3 and cleaved-PARP were observably increased at 100 μM.</td> </tr> </table>	Cell Line:	SKOV3 cells, SKOV3-ip cells, A2780 cells (human EOC cell lines)	Concentration:	1 nM, 10 nM, 100 nM, 1 μM, 10 μM, 100 μM, 1 mM	Incubation Time:	48 hours, 72 hours	Result:	The expression of cleaved-caspase-3 and cleaved-PARP were observably increased at 100 μM.
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<p>RT-PCR^[1]</p> <table border="1"> <tr> <td data-bbox="345 1079 613 1113">Cell Line:</td> <td data-bbox="638 1079 1515 1113">SKOV3-ip cells</td> </tr> <tr> <td data-bbox="345 1134 613 1167">Concentration:</td> <td data-bbox="638 1134 1515 1167">100 μM</td> </tr> <tr> <td data-bbox="345 1188 613 1222">Incubation Time:</td> <td data-bbox="638 1188 1515 1222">24 hours, 48 hours, 72 hours</td> </tr> <tr> <td data-bbox="345 1243 613 1276">Result:</td> <td data-bbox="638 1243 1515 1276">Expression of human apoptosis-related genes regulated</td> </tr> </table>	Cell Line:	SKOV3-ip cells	Concentration:	100 μM	Incubation Time:	24 hours, 48 hours, 72 hours	Result:	Expression of human apoptosis-related genes regulated	
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In Vivo	<p>Goserelin (100 μg; s.c.; daily; for 19 days) significantly increases the proportion of apoptotic cells in the subcutaneous xenograft tumors^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
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REFERENCES

[1]. Ning Zhang, et al. Goserelin promotes the apoptosis of epithelial ovarian cancer cells by upregulating forkhead box O1 through the PI3K/AKT signaling pathway. *Oncol*

Rep. 2018 Mar; 39(3): 1034–1042.

[2]. Halle C F Moore, et al. Goserelin for ovarian protection during breast-cancer adjuvant chemotherapy. N Engl J Med. 2015 Mar 5;372(10):923-32.

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