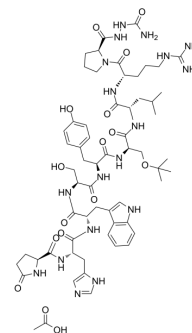


## Goserelin acetate

<b>Cat. No.:</b>	HY-13673A
<b>CAS No.:</b>	145781-92-6
<b>Molecular Formula:</b>	C <sub>61</sub> H <sub>88</sub> N <sub>18</sub> O <sub>16</sub>
<b>Molecular Weight:</b>	1329.46
<b>Target:</b>	GnRH Receptor; Apoptosis
<b>Pathway:</b>	GPCR/G Protein; Apoptosis
<b>Storage:</b>	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

H<sub>2</sub>O : 100 mg/mL (75.22 mM; Need ultrasonic)  
 DMSO : ≥ 28 mg/mL (21.06 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	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: 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<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

GnRH<sup>[1]</sup>

**In Vitro**

Goserelin (1 nM-1 mM; 48-72 hours) promotes EOC cell apoptosis<sup>[1]</sup>.

Goserelin (100 μM; 24-72 hours) regulates the expression of human apoptosis-related genes in SKOV3-ip cells<sup>[1]</sup>.

Goserelin (100 μM; 24-72 hours) promotes EOC cell apoptosis by upregulating FOXO1 through the PI3K/AKT signaling pathway<sup>[1]</sup>.

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

**Apoptosis Analysis<sup>[1]</sup>**

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:	Significantly increased the total apoptosis rate of SKOV3-ip, SKOV3 and A2780 cells.

**Western Blot Analysis<sup>[1]</sup>**

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.

**RT-PCR<sup>[1]</sup>**

Cell Line:	SKOV3-ip cells
Concentration:	100 μM
Incubation Time:	24 hours, 48 hours, 72 hours
Result:	Expression of human apoptosis-related genes regulated

**In Vivo**

Goserelin (100 μg; s.c.; daily; for 19 days) significantly increases the proportion of apoptotic cells in the subcutaneous xenograft tumors<sup>[1]</sup>.

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

Animal Model:	Five-week-old specific-pathogen free (SPF) female nude mice (18-20 g), subcutaneous xenograft tumor model <sup>[1]</sup>
Dosage:	100 μg/mice
Administration:	Subcutaneous injection, daily, for 19 days
Result:	Significantly increased the proportion of apoptotic cells in the subcutaneous xenograft tumors

**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.

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

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