

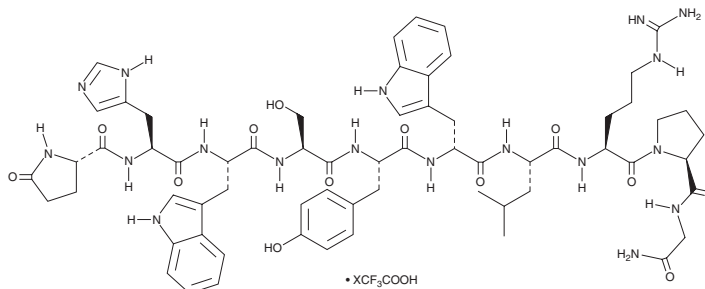
PRODUCT INFORMATION



Triptorelin (trifluoroacetate salt)

Item No. 28613

CAS Registry No.: 2240176-35-4
Formal Name: 6-D-tryptophan-luteinizing hormone-releasing factor (swine), trifluoroacetate
Synonyms: [D-Trp6]LH-RH, [D-Trp6]-GnRH, AY 25650, BIM 21003, CL 118,532, Wy 42422, Wy 42462
MF: $C_{64}H_{82}N_{18}O_{13} \cdot XCF_3COOH$
FW: 1,311.5
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 222 nm
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Triptorelin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the triptorelin (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Triptorelin (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of triptorelin (trifluoroacetate salt) in these solvents is approximately 3 and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of triptorelin (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of triptorelin (trifluoroacetate salt) in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Triptorelin is a synthetic gonadotropin-releasing hormone (GnRH) peptide agonist that binds to the GnRH receptor (GnRHR; $K_i = 0.3$ nM in CHO cells expressing the human receptor).¹ It inhibits the growth of DU145, LNCaP, and PC3 prostate and OVCAR-3 ovarian cancer cells (IC_{50} s = 62.1, 73.4, 98.1, and 67.7 μ M, respectively).² Triptorelin also inhibits the growth of the triple-negative breast cancer (TNBC) cell lines HCC1806 and MDA-MB-231 (EC_{50} s = 58.29 and 31.59 μ M, respectively).³ It stimulates follicle stimulating hormone (FSH) and luteinizing hormone (LH) release from primary rat pituitary cells when used at a concentration of 50 nM.² It also decreases tumor volume of Dunning R3327H prostate tumor flank implants and reduces prostate and testis weight in rats when administered at a dose of 1 mg/kg per day.⁴ Formulations containing triptorelin have been used in the palliative treatment of advanced prostate cancer.

References

1. Niderpelt, I., Georgi, V., Schiele, F., et al. *Br. J. Pharmacol.* **173**(1), 128-141 (2016).
2. Varamini, P., Rafiee, A., Giddam, A.K., et al. *J. Med. Chem.* **60**(20), 8309-8320 (2017).
3. Kwok, C.W., Treeck, O., Buchholz, S., et al. *Target Oncol.* **10**(3), 365-373 (2015).
4. Princiville, M., Broqua, P., White, R., et al. *J. Pharmacol. Exp. Ther.* **320**(3), 1113-1118 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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