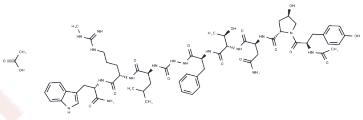
Data Sheet (Cat.No.TP1093)

TAK-448 acetate

Chemical Properties



CAS No. : 1470374-22-1

Formula: C60H84N16O16

Molecular Weight: 1285.41

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	TAK-448 acetate (MVT-602 acetate) is a synthetic peptide and small molecule KISS1R agonist with antitumor activity. It inhibits the proliferation of VCaP cells and is useful in prostate cancer research.
Targets(IC50)	Kisspeptin
In vivo	A single injection of TAK-448 significantly increases plasma levels of follicle-stimulating hormone and testosterone (T) in male rats. In the androgen-sensitive prostate cancer model of male rats with VCaP xenografts, TAK-448 (0.01, 0.03, 0.3, 3 mg/kg; i.h.; 0,28 days) exhibits greater anti-tumor effects[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (62.24 mM),Sonication is recommended. H2O: 30 mg/mL (23.34 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (2.57 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.778 mL	3.8898 mL	7.7796 mL
5 mM	0.1556 mL	0.778 mL	1.5559 mL
10 mM	0.0778 mL	0.389 mL	0.778 mL
50 mM	0.0156 mL	0.0778 mL	0.1556 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Nishizawa N, et al. Design and Synthesis of an Investigational Nonapeptide KISS1 Receptor (KISS1R) Agonist, Ac-d-Tyr-Hydroxyproline (Hyp)-Asn-Thr-Phe-azaGly-Leu-Arg(Me)-Trp-NH2 (TAK-448), with Highly PotentTestosterone-Suppressive Activity and Excellent Water Solubility. J Med Chem. 2016 Oct 13;59(19):8804-8811.
Ishikawa K,et al. Usefulness of pharmacokinetic/efficacy analysis of an investigational kisspeptin analog, TAK-448, in quantitatively evaluating anti-tumor growth effect in the rat VCaP androgen-sensitiveprostate cancer model. Eur J Pharmacol. 2018 Jun 5;828:126-134.

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