

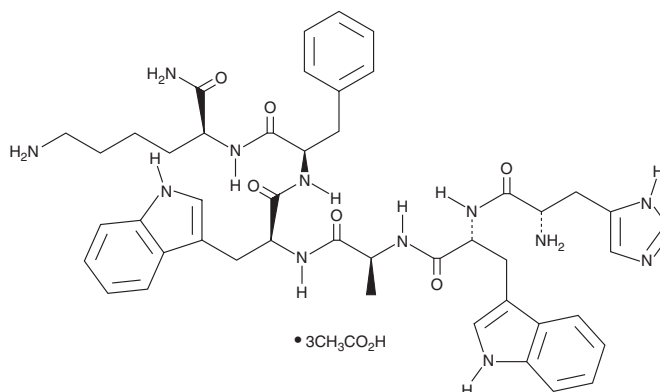
PRODUCT INFORMATION



GHRP-6 (acetate)

Item No. 27262

CAS Registry No.: 145177-42-0
Formal Name: L-histidyl-D-tryptophyl-L-alanyl-L-tryptophyl-D-phenylalanyl-L-lysine triacetate
Synonyms: Growth Hormone Releasing Peptide 6, Hexapeptide-2, HWAWFK-NH₂, SKF 110679, U 75799E
MF: C₄₆H₅₆N₁₂O₆ • 3C₂H₄O₂
FW: 1,053.2
Purity: ≥98%
UV/Vis.: λ_{max}: 221 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

GHRP-6 (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the GHRP-6 (acetate) in the solvent of choice, which should be purged with an inert gas. GHRP-6 (acetate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of GHRP-6 (acetate) in these solvents is approximately 30 mg/ml.

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 GHRP-6 (acetate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of GHRP-6 (acetate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

GHRP-6 is a synthetic growth hormone (GH) secretagogue and an agonist of the GH secretagogue receptor (GHS-R), which is also known as the ghrelin receptor.¹⁻⁴ It inhibits binding of the GHS-R agonist MK-0677 (ibutamoren; Item No. 18003) to COS-7 cell membranes expressing human GHS-R type Ia (K_i = 1.9 nM) and binding of ghrelin to COS-7 cells expressing human GHS-R (K_d = 260 nM).^{2,3} GHRP-6 stimulates intracellular calcium mobilization in BHK cells expressing the human receptor (EC₅₀ = 4.5 nM) and inositol phosphate production in COS-7 cells expressing the human receptor (EC₅₀ = 0.83 nM).³ It also acts as a negative allosteric modulator of ghrelin (Item Nos. 15072 | 24458) signaling. GHRP-6 (0.03 µg/ml) induces release of GH, but not thyroid-stimulating hormone (TSH), luteinizing hormone (LH), or follicle-stimulating hormone (FSH), in isolated rat pituitary gland.¹ It increases levels of GH, but not TSH, LH, FSH, or prolactin, in rat blood when administered subcutaneously at a dose of 50 µg. GHRP-6 increases food intake in rats when administered intracerebroventricularly at 0.3, 1, and 3 nmol.⁴

References

1. Bowers, C.Y., Momany, F.A., Reynolds, G.A., *et al. Endocrinology* **114**(5), 1537-1545 (1984).
2. Howard, A.D., Feighner, S.D., Cully, D.F., *et al. Science* **273**(5277), 974-977 (1996).
3. Holst, B., Brandt, E., Bach, A., *et al. Mol. Endocrinol.* **19**(9), 2400-2411 (2005).
4. Wren, A.M., Small, C.J., Ward, H.L., *et al. Endocrinology* **141**(11), 4325-4328 (2000).

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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