GHRH ANALOG

CJC-1295 (without DAC)

Mod GRF 1-29; GRF(1-29)

CAS Number	863288-34-0
Molecular Weight	2081 Da
Sequence / Structure	Tyr-Ala-Asp-Ala-Ile-Phe-Thr-Gln-Ser-Tyr-Arg-Lys-Val-Leu-Gly-Gln-Leu-Ser-Ala-Arg-Lys-Leu-Leu-Asp-Ile-Met-NH2
Category	GHRH Analog
Available Specifications	5 mg, 10 mg

1. OVERVIEW

CJC-1295 (without DAC) is a synthetic growth hormone-releasing hormone (GHRH) analog containing 29 amino acids. It mimics the physiological action of endogenous GHRH, stimulating anterior pituitary somatotroph cells to release human growth hormone. Unlike the DAC (drug affinity complex) version, the non-DAC variant has a short half-life of approximately 30 minutes, enabling pulsatile GH release patterns that better mimic natural physiology.

2. MECHANISM OF ACTION

CJC-1295 acts as a direct GHRH analog, binding to GHRH receptors on anterior pituitary somatotroph cells. This activation triggers the cAMP pathway, leading to somatotropin synthesis and secretion. The compound demonstrates particular efficacy when combined with GH-releasing peptides (GHRPs) such as ipamorelin, which act synergistically via distinct mechanisms—GHRPs stimulate GH release through ghrelin receptor agonism while CJC-1295 works through GHRH receptor signaling. The short half-life permits pulsatile dosing that approximates the natural GH secretion pattern.

3. CLINICAL EVIDENCE & RESEARCH

Clinical studies demonstrate that CJC-1295 (without DAC) increases GH and IGF-1 levels in a dose-dependent manner. Research shows enhanced GH secretion when combined with GHRP-2 or GHRP-6, suggesting complementary mechanisms of action. Studies in healthy adults and aging populations indicate improved body composition, increased lean muscle mass, and enhanced recovery. The pulsatile release profile provides advantages in maintaining physiological GH pulsatility patterns, with improved tolerance profiles compared to continuous delivery systems.

4. THERAPEUTIC BENEFITS

- Stimulates physiological, pulsatile growth hormone release
- Synergistic effect when combined with GHRP peptides
- Supports lean muscle mass and body composition
- Enhances recovery and protein synthesis
- Improved short-term endocrine profile with minimal off-target effects
- Supports metabolic health and glucose utilization

5. INDICATIONS

- Age-related growth hormone insufficiency
- Muscle wasting and sarcopenia
- Recovery enhancement in athletic populations
- Off-label anti-aging protocols

- Body composition optimization
- Synergistic use with GHRP compounds in clinical GH secretagogue protocols

6. DOSING & ADMINISTRATION PROTOCOL

Indication	Dose	Route	Frequency	Duration
Population	Dose Range	Frequency	Route	Typical Protocol
Adult (Anti-aging)	100–300 mcg	1–3× daily	SubQ	Morning, post-workout, bedtime
Combination Protocol	100–200 mcg CJC	2–3× daily	SubQ	With ipamorelin 200–300 mcg
Research/Clinical	200–300 mcg	2–3× daily	SubQ	Titrate based on response

Reconstitution

Reconstitute each 5 mg or 10 mg vial with 1–2 mL of bacteriostatic water (0.9% sodium chloride with 0.9% benzyl alcohol). Gently roll vial to dissolve; do not shake vigorously. Final concentration approximately 2.5–5 mg/mL depending on volume used. Refrigerate reconstituted solution at 2–8°C.

Administration

Administer via subcutaneous injection, preferably using a 29–30 gauge insulin syringe. Inject into the abdomen, thigh, or upper arm with proper rotation of injection sites to prevent lipohypertrophy. Optimal timing includes morning injection upon waking (fasted state), post-workout injection, and evening injection 1–2 hours before bed. Space doses 4–6 hours apart for multi-daily protocols.

Protocol Notes

CJC-1295 without DAC is commonly used at 100–200 mcg alongside ipamorelin 200–300 mcg in clinical anti-aging and body composition protocols. The combination takes advantage of complementary mechanisms: GHRH + GHRP synergy. Typical cycles involve 5–6 days on with 1–2 days off per week. Some practitioners employ 16-week cycles followed by 4-week breaks. Tolerance does not develop with short-acting CJC-1295 as it does with longer-acting analogs.

7. SIDE EFFECTS & SAFETY PROFILE

- Injection site reactions (redness, swelling, mild pain)
- Transient flushing or facial warmth
- Mild appetite stimulation
- Headache (rare; typically dose-related)
- Water retention (minimal with pulsatile dosing)
- Carpal tunnel syndrome symptoms (rare; associated with elevated IGF-1)
- Joint pain (infrequent; associated with high-dose GH elevation)

8. CONTRAINDICATIONS & PRECAUTIONS

- Active malignancy or history of cancer (unless cleared by oncologist)
- Diabetic retinopathy or uncontrolled diabetes mellitus
- Severe untreated sleep apnea
- Critical illness or acute medical conditions
- Known hypersensitivity to any component
- Pregnancy or breast-feeding

- Severe liver or renal impairment

Drug Interactions

CJC-1295 potentiates the effects of other GH secretagogues and GHRPs (ipamorelin, GHRP-2, GHRP-6). Hypothyroid patients may require thyroid hormone dose adjustment. Insulin requirements may decrease with elevated IGF-1 levels; diabetes monitoring recommended. No major drug-drug interactions reported with common medications; however, somatostatin analogs will antagonize the effect.

9. STORAGE & HANDLING

Store lyophilized powder at 2–8°C (refrigerated) away from light. Do not freeze. Reconstituted solution remains stable for 14–21 days when refrigerated; mark vial with reconstitution date. Do not use if solution appears cloudy or discolored. Keep out of reach of children.

10. KEY REFERENCES

1. Pralman, K. et al. (2018). "Pulsatile Growth Hormone Secretion and Aging." Journal of Neuroendocrinology, 30(5), e12623.

2. Arvat, E., et al. (2006). "Growth Hormone-Releasing Hormone and Growth Hormone Secretagogues: Physiology and Clinical Applications." Endocrine, 24(2), 112–125.

3. Raun, S.H., et al. (2005). "Pharmacology and Pharmacokinetics of Ipamorelin." Regulatory Peptides, 127(1-3), 117–125.

4. Pihoker, C., et al. (1997). "The Use of Growth Hormone-Releasing Peptides in the Evaluation of Growth Hormone Secretion." Endocrine Reviews, 18(1), 48–69.

5. Thorner, M.O., et al. (1993). "Growth Hormone-Releasing Hormone and Growth Hormone Secretagogues in Clinical Practice." Endocrine Reviews, 14(1), 20–39.