CJC 1295

Como Compounding Pharmacy

CJC 1295: Growth Hormone Releasing Peptide **Purity:** 98% (HPLC on request)
Molecular Formula : C165H269N47O46 **Molecular Weight:** 3647.15 **CAS No.:**863288-34-0
Sequence: Tyr-D-Ala-Asp-Ala-Ile-Phe-Thr-Gln-Ser-Tyr-Arg-Lys-Val-Leu-Ala-Gln-Leu-Ser-Ala- Arg-Lys-Leu-Leu-Gln-Asp-Ile-Leu-Ser-Arg-Lys(maleimido)

Description

CJC 1295 has shown some amazing results as a growth hormone releasing hormone (GHRH) analog. Not only has CJC 1295 shown potential to increase growth hormone and IGF-I secretion and effects, but it has been able to do so in very large amounts. CJC 1295 Stimulates Growth Hormone Secretion, and will keep a steady increase of HGH and IGF-1 with no increase in prolactin, leading to fat loss, and increased protein synthesis thereby promoting growth.

CJC 1295 is a tetrasubstituted 30-amino acid peptide hormone, primarily functioning as a growth hormone releasing hormone (GHRH) analog.

One of the advantages of CJC 1295 over traditional GHRH or rHGH is its ability to bioconjugate with serum albumin, thus increasing its half-life and therapeutic window. It accomplishes this by using protecting groups around the amino acids of GHRH typically susceptible to enzymatic degradation.

CJC 1295 can be compounded in two forms (DAC and non-DAC). Drug affinity complex (DAC) prevents enzymatic degradation thus increasing the half-life. Consequently CJC 1295-DAC can be dosed as a single weekly injection. Administration of CJC 1295-DAC provides a GHRH-like stimulation around the clock. A potential drawback when using a weekly protocol can be attributed to ineffective GHRH stimulation when the body is due for a GH spike (usually 1:00am). This is referred to as a GH-bleed and the overall result is inferior to using CJC 1295-NON-DAC daily for 5 days out of 7. Therefore using CJC 1295-NON-DAC daily (between 6-8pm) provides a more effective GH spike at 1:00am.

Various experiments have been conducted to test the effectiveness of CJC 1295-DAC in vivo and the Journal of Clinical Endocrinology & Metabolism has reported dose-dependent increases in mean plasma GH concentrations by 2-10 fold for more than 6 days and increased IGF-1 concentrations 1.5-3 fold for 9-11 days after a single injection. Mean half-life was shown to be 5.8-8.1 days, also after multiple doses mean IGF-1 levels remained above baseline for up to 28 days. No serious adverse reactions were reported in any group.

Another benefit of CJC 1295 is its ability to promote slow wave sleep. Slow wave sleep is also known as deep sleep and is the portion of sleep responsible for the highest level of muscle growth and memory retention. SWS decreases significantly in older adults and also with people who tend to exercise later in the evening. Clinical studies have shown that a once-daily administration of CJC 1295 normalizes the GHRH response and can induce significantly deeper sleep.

Dosing Protocol

Content and Potency: 1 x 5mL at 2000mcg/ml ready-to-inject subcutaneous.

Suggested dosage: 0.10ml per day 5 days out of 7 (NON-DAC) between 6 - 8pm (10 weeks supply).

Transdermal Option: 200mcg/mL x 50mL – Apply 1mL daily 5 days out of 7 (10 weeks supply).

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Clinical Research

Prolonged Stimulation of Growth Hormone (GH) and Insulin-Like Growth Factor I Secretion by CJC 1295, a Long-Acting Analog of GH-Releasing Hormone, in Healthy Adults

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Context: Therapeutic use of GHRH to enhance GH secretion is limited by its short duration of action.

Objective: The objective of this study was to examine the pharmacokinetic profile, pharmacodynamic effects, and safety of CJC 1295, a long-acting GHRH analog.

Design: The study design was two randomized, placebo-controlled, double blind, ascending dose trials with durations of 28 and 49 d.

Setting: The study was performed at two investigational sites.

Participants: Healthy subjects, ages 21–61 yr, were studied.

Interventions: CJC 1295 or placebo was administered sc in one of four ascending single doses in the first study and in two or three weekly or biweekly doses in the second study.

Main Outcome Measures: The main outcome measures were peak concentrations and area under the curve of GH and IGF-I; standard pharmacokinetic parameters were used for CJC 1295.

Results: After a single injection of CJC 1295, there were dose dependent increases in mean plasma GH concentrations by 2- to 10-fold for 6 d or more and in mean plasma IGF-I concentrations by 1.5- to 3-fold for 9–11 d. The estimated half-life of CJC 1295 was 5.8–8.1 d. After multiple CJC 1295 doses, mean IGF-I levels remained above baseline for up to 28 d. No serious adverse reactions were reported.

Conclusions: Subcutaneous administration of CJC 1295 resulted in sustained, dose-dependent increases in GH and IGF-I levels in healthy adults and was safe and relatively well tolerated, particularly at doses of 30 or 60 ug/ kg. There was evidence of a cumulative effect after multiple doses. These data support the potential utility of CJC 1295 as a therapeutic agent.

(J Clin Endocrinol Metab 91:799–805, 2006)

A full copy of all trials are available from Como Compounding Pharmacy. Please contact us for more info.