

GHRP-2 — Basic Review Questions

1. What is GHRP-2, what type of peptide is it, and what is its regulatory status?

Answer: GHRP-2 (also called pralmorelin or KP-102) is a synthetic hexapeptide growth hormone secretagogue that acts on the GHS-R1a (ghrelin) receptor. Among the traditional GHRPs it is the most potent for releasing growth hormone. It is approved in Japan only as a diagnostic agent for GH deficiency, but it is not FDA-approved in the US, where all use is off-label and investigational, and it is WADA-prohibited in sport.

2. How does GHRP-2 work?

Answer: It binds the ghrelin receptor at two sites — directly on the pituitary to release growth hormone, and on the hypothalamus to promote the body's own GHRH — while also lifting the somatostatin brake that normally inhibits GH. The result is a pulsatile (physiologic) release of GH that then raises IGF-1 through the liver. Because it amplifies the body's own GH and keeps the feedback loops intact, it is fundamentally different from injected synthetic GH, which bypasses that control.

3. What makes GHRP-2 distinctive among the GHRPs?

Answer: It produces the strongest single GH pulse of the traditional GHRPs, and that potency holds up just as well in older patients as in young adults. That strong, clean pulse is why it is often used as a once-daily injection at night — capturing the largest natural (nocturnal) GH surge that supports deep sleep and recovery — rather than needing multiple daily doses.

4. How does GHRP-2 compare with the other GHRPs?

Answer: GHRP-2 gives the most potent GH release, but it sits in the middle on side effects. It stimulates appetite moderately (less than GHRP-6, more than ipamorelin) and raises cortisol and prolactin only mildly (again, less than GHRP-6). Ipamorelin is the cleanest and most selective of the family, while GHRP-6 has the strongest appetite and the broadest CD36-mediated tissue protection. GHRP-2 also has its own milder CD36 cytoprotective effect as a bonus.

5. How is GHRP-2 dosed, and why does the dose matter so much?

Answer: The main practical concern is desensitization of the receptor, which is driven by the size of the dose more than by frequency. So the guidance is to hold each injection around 100 mcg rather than chase higher numbers — and because that dose preserves sensitivity, it can be given once daily (evening) or up to a few times daily, always with at least a 3-hour window between doses so the GH response can recover. Cycling (some weeks on, then a break) further protects the receptor. Dose fasted, since carbohydrate and fat blunt the GH release.

6. What are the main side effects and cautions?

Answer: Common effects are mild and expected: a moderate appetite increase, mild transient cortisol and prolactin elevation, occasional flushing or water retention, and a small, transient rise in blood glucose (because GH briefly opposes insulin). The glucose effect is a normal, temporary part of pushing the cell toward greater efficiency — not a

red flag — but uncontrolled diabetes should be addressed first, often with a GLP-1 drug. It is contraindicated in active cancer, active pituitary disease, and pregnancy, and prohibited for drug-tested athletes.