Des-acyl Ghrelin (Unacylated Ghrelin)

Also called: Des-acyl ghrelin; Desacyl ghrelin; Unacylated ghrelin; UAG; Des-octanoyl ghrelin; DAG (ghrelin)

What it is

Des-acyl ghrelin (DAG, unacylated ghrelin / UAG) is the unacylated form of ghrelin — the same 28-amino-acid peptide from the GHRL precursor but lacking the Ser3 octanoyl group ghrelin needs to activate GHSR-1a. The more abundant form in blood, it is metabolically active through distinct, unidentified receptors and often opposes acylated ghrelin: it blunts ghrelin's appetite effect (PMID 18938204) and improves after-meal glucose (PMID 23652397), and acts on heart and muscle (PMIDs 20410201, 17202410). Its analog AZP-531 (livoletide) was tested in a randomized Prader-Willi trial (PMID 29320575). It is an endogenous / investigational peptide, not an approved medicine.

Approval status

Research Chemical. Not approved: Drugs@FDA and the openFDA label endpoint hold no approval for des-acyl (unacylated) ghrelin or its analog AZP-531 (livoletide), searched November 6, 2026. The native peptide is endogenous; FDA GSRS and ChEMBL hold no approved drug record. The analog AZP-531 reached randomized human trials (e.g. Prader-Willi syndrome) but was not approved.

Dosing, as printed in the page's Recommended Dosing box

No established human dose

Des-acyl ghrelin and its stabilized analog AZP-531 (livoletide) have been given to people only in research and clinical trials — for example AZP-531 by daily subcutaneous injection for 14 days in a Prader-Willi trial — not as an approved treatment. No regulator has approved des-acyl ghrelin or its analog, and no established therapeutic dose exists; the amounts used in trials and research do not constitute a dose to self-administer, so none is printed here as guidance.

Educational information, not medical advice. None is a recommendation for you. An unapproved compound has no established safe or effective human dose, and products sold for "research use only" are not made or tested for people. Talk to a doctor before acting on anything on this site, including before you start, stop or change any medicine or dose.

Key human evidence

The 1 human study carded on the page (6 study cards in all):

• **AZP-531 (unacylated-ghrelin analog) RCT in Prader-Willi** (Human, 2018). A multicentre, randomized, double-blind, placebo-controlled trial of AZP-531 — a first-in-class unacylated-ghrelin analog — in 47 patients with Prader-Willi syndrome (a disorder of relentless hunger). Given by daily subcutaneous injection for 14 days it was well tolerated and significantly improved hyperphagia questionnaire scores and appetite, reduced waist circumference and fat mass, and lowered post-meal glucose, though body weight did not change — supporting unacylated ghrelin as a treatment strategy worth longer trials. **PMID 29320575**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 6, 2026, 12 records) found none in people. That is not evidence that it is safe to combine with anything.

Side effects and cautions

Reported side effects	Contraindications and cautions
• In the Prader-Willi trial, the unacylated-ghrelin analog AZP-531 was well tolerated over 14 days of daily subcutaneous injection (PMID 29320575) — a short investigational safety signal, not an established profile • In metabolic studies des-acyl ghrelin can lower acylated ghrelin and post-meal glucose (PMID 23652397) — a pharmacological effect to be aware of, not an approved use • It acts through unidentified receptors in heart, muscle and fat (PMIDs 20410201, 17202410), so effects beyond appetite and glucose are possible and not fully characterised • Material sold online as 'des-acyl ghrelin' or 'unacylated ghrelin' is an unregulated research chemical of unverified content and purity	• Not an approved medicine: no FDA approval for the native peptide or its analog • No approved human dose, and no long-term or pregnancy safety data for administration • It is a research and investigational peptide, not a treatment • Its metabolic effects (glucose, appetite) could interact with diabetes or weight medications — a reason it belongs in supervised research only

Five questions to ask

1. Des-acyl Ghrelin (Unacylated Ghrelin) is listed here as "Research Chemical". What does the evidence on this sheet mean for someone in my situation, and is there an approved treatment I should consider instead?
2. Here are the medicines and supplements I take. Do any of them interact with Des-acyl Ghrelin (Unacylated Ghrelin)? This sheet records none published, which does not mean none exist.
3. Which side effects should make me stop and call you, for example in the prader-willi trial?
4. Do any of the cautions on this sheet apply to me, such as: Not an approved medicine: no FDA approval for the native peptide or its analog?
5. What should we check before I start and while I am on it (blood tests, blood pressure, weight), and how often?

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