Pancreastatin

Also called: PST; CgA250-301; Chromogranin A 250-301

What it is

Pancreastatin (PST) is an endogenous chromogranin A-derived peptide (human CgA250-301), the sister fragment of catestatin. Named for inhibiting insulin secretion, it is a counter-regulatory, 'dysglycemic' signal: it drives hepatic glycogenolysis and lipolysis and blunts glucose uptake (PMID 20184923), cutting forearm glucose uptake by about half when infused in healthy men (PMID 15956083). It is elevated in type 2 diabetes and hypertension, a more-potent Gly297Ser variant raises cardiometabolic risk (PMID 34862200), and the therapeutic aim is to block it (the inhibitor PSTi8; PMID 29880906). It is a research peptide, not an approved medicine, and has never been given to people as a treatment.

Approval status

Research Chemical. Not a drug: Drugs@FDA and the openFDA label endpoint hold no record, and FDA GSRS and ChEMBL hold no substance record for pancreastatin (searched November 6, 2026). It is an endogenous chromogranin A-derived peptide; there is no therapeutic development of pancreastatin itself, and no registered interventional trial of giving it as a treatment — the human studies infused it briefly to probe metabolism. The therapeutic effort is to block it with inhibitor peptides (PSTi8), which remain preclinical.

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

No established human dose

Pancreastatin has been infused into people only briefly, as a research probe of metabolism (a local brachial-artery infusion of about 200 nM over roughly 15 minutes), never as a treatment — and because it is elevated and harmful in metabolic disease, the therapeutic aim is to block it, not to give it. No regulator has approved any dose, and those experimental infusion concentrations are not a therapeutic dose, so no amount is printed here.

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 3 human studies carded on the page (6 study cards in all):

• **Pancreastatin cuts human glucose uptake in vivo** (Human, 2005). Synthetic human pancreastatin (CgA273-301-amide, ~200 nM) infused into the brachial artery of healthy men reduced forearm glucose uptake by about 48-50% with no change in blood flow — a metabolic, not circulatory, effect. It did not antagonize insulin's own glucose action, so it acts as an independent dysglycemic signal. Plasma pancreastatin was about 3.7-fold higher in diabetes, and the naturally occurring Gly297Ser variant was more potent at inhibiting glucose uptake. **PMID 15956083**

• **Human forearm model of pancreastatin** (Human, 2002). In six healthy men, pancreastatin (CgA273-301-amide, ~200 nM) infused into the brachial artery over 15 minutes significantly reduced forearm glucose uptake (about 54%) without changing blood flow, and infusing it together with insulin did not diminish insulin's own effect. The authors concluded pancreastatin may contribute to the dysglycemia of type 2 diabetes and essential hypertension, in which its plasma levels are elevated. **PMID 12438174**

• **The Gly297Ser variant as a cardiometabolic risk factor** (Human, 2022). In Indian populations (about 4,300 people), a functional pancreastatin variant (Gly297Ser) was associated with higher blood glucose, HbA1c, blood pressure and catecholamines, and a roughly 1.3-1.6-fold increased risk of type 2 diabetes, hypertension, coronary artery disease and metabolic syndrome. The variant peptide was more potent in cellular assays and bound GRP78 and the insulin receptor more tightly — a mechanistic basis for its gain of function. **PMID 34862200**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 6, 2026, 4 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
• No therapeutic human safety data exist: the human studies infused it briefly to measure metabolism (PMIDs 15956083, 12438174) • Its physiological effect is to raise blood glucose and blunt insulin — harmful if sustained, which is why therapy aims to block it (PMID 20184923) • High pancreastatin is associated with type 2 diabetes, insulin resistance and hypertension, and a gain-of-function variant raises cardiometabolic risk (PMID 34862200) • Material sold online as 'pancreastatin' is an unregulated research chemical of unverified content	• Not a medicine: no FDA application or label, and no approval anywhere • No therapeutic human dosing, interaction, pregnancy or long-term safety data exist • It is a laboratory research peptide and drug target — and raising it would be expected to worsen, not improve, blood sugar • Elevated levels in disease are associations and a drug target for blockade, not a reason to take it

Five questions to ask

1. Pancreastatin 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 Pancreastatin? This sheet records none published, which does not mean none exist.
3. Which side effects should make me stop and call you, for example no therapeutic human safety data exist: the human studies infused it briefly to measure metabolism?
4. Do any of the cautions on this sheet apply to me, such as: Not a medicine: no FDA application or label, and no approval anywhere?
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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