Prolactin-releasing peptide

Also called: PrRP; PrRP31; PrRP20; PrRP-31; PrRP-20; prolactin releasing peptide; Prolactin-releasing peptide PrRP31; Prolactin-releasing peptide PrRP20

What it is

Prolactin-releasing peptide was found in 1998 as the ligand of the pituitary receptor hGR3/GPR10 (PMID 9607765). It is a weaker prolactin trigger than TRH (PMID 17873321); mice without it overeat and become obese (PMID 19033670). In people it has only been measured in tissue, highest in the hypothalamus (PMID 11068103), never given.

Approval status

Research Chemical. Not a medicine anywhere in the sources read: Drugs@FDA (openFDA) returns no record for prolactin-releasing peptide (November 3, 2026). In people it has only been measured in tissue (PMID 11068103).

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

No established human dose

Prolactin-releasing peptide has never been given to people in any study read. The human evidence is measurement only: radioimmunoassay of post-mortem brain and adrenal tissue, gene-message studies of pituitary, placenta and decidua, and experiments on human pituitary and decidual cells in culture.

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 first 3 of the 5 human studies carded on the page (23 study cards in all):

• **Its message in normal human pituitary and in tumours** (Human, 1999). Using RT-PCR, the group found PrRP message in all five normal human pituitaries tested but in only 5 of 11 prolactinomas. Every prolactinoma that made it had responded to dopamine-agonist treatment, while those without it had responded poorly or only partly. It also turned up in about half of growth hormone tumours and non-functioning tumours, and the receptor's message was present in every sample, normal or not. **PMID 10599733**

• **Mapped in the human brain** (Human, 2000). A radioimmunoassay with an antiserum against human PrRP31, which read PrRP20 equally well, measured the peptide in post-mortem brain from six people. The hypothalamus held the most, about 912 fmol per gram of tissue, followed by the medulla oblongata and the thalamus; the frontal and temporal lobes held too little to detect. Chromatography found both lengths. Even in the hypothalamus the amount was lower than that of TRH or vasoactive intestinal peptide, two other peptides that can release prolactin. **PMID 11068103**

• **Made in placenta and decidua, without the receptor** (Human, 2001). PrRP message was found in human placenta and decidua throughout pregnancy and rose somewhat in mid-pregnancy. Treating cultured endometrial and decidual cells with 1 microM PrRP31 did not change their prolactin output, and the decidua did not make the receptor's message. The authors concluded that the peptide made in these tissues has some other job in pregnancy. **PMID 11523913**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 3, 2026, 10 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 rats, a brain injection raised blood pressure and heart rate (PMID 19821834) • In rats, a brain injection raised corticosterone, a stress hormone (PMID 16730416) • No human safety data exist: every human study read measured it in tissue or tested it on cells (PMID 11068103)	• Not a medicine: there is no approved product and no treatment dose • Lipidized analogues studied for obesity are different molecules; their animal results do not describe the natural peptide • Brain effects in animals include raised stress hormones and blood pressure, so laboratory findings point to risks as well as uses

Five questions to ask

1. Prolactin-releasing peptide 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 Prolactin-releasing peptide? 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 rats?
4. Do any of the cautions on this sheet apply to me, such as: Not a medicine: there is no approved product and no treatment dose?
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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