BRING THIS TO YOUR DOCTOR · GREY PEPTIDES

# Neuropeptide B (NPB)

**Also called:** NPB; Neuropeptide-B; NPB23; NPB29; NPB-23; NPB-29

## What it is

Neuropeptide B (NPB) is an endogenous brain peptide and the sister of neuropeptide W, a natural ligand of the receptors NPBWR1 (GPR7) and NPBWR2 (GPR8) that is selective for GPR7 and carries a 6-bromo-tryptophan at its N terminus. It regulates appetite, metabolism and energy balance — losing it causes obesity in mice (PMID 34205710) — promotes slow-wave sleep (PMID 21203369), tunes neuroendocrine hormone release (PMID 16847439) and blunts inflammatory pain without opioids (PMID 15910767). 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 neuropeptide B (searched November 6, 2026). It is an endogenous human peptide; there is no therapeutic development of NPB itself, and no registered interventional trial of giving it to people. It is studied as a signalling peptide, and its receptors (NPBWR1 / NPBWR2) as potential drug targets, which remain preclinical.

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

**No established human dose**

Neuropeptide B is an endogenous human peptide that has never been given to people as a treatment. The human evidence is anatomy and physiology; the functional studies are in animals and cells, where NPB is injected into the brain or spinal fluid or applied to cells at experimental amounts that do not carry over to people.

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

No human study is carded on the page; its 6 study cards are reviews, animal or cell work. The first 2:

• **Neuropeptide B in appetite, metabolism and energy** (Review, 2021). A review of neuropeptide B and its receptors NPBWR1 (GPR7) and NPBWR2 (GPR8). In the brain NPB modulates appetite, reproduction, pain, anxiety and emotion; in the periphery it influences adrenal hormones, pancreatic beta cells and adipose tissue. The authors highlight that experimentally lowering NPB or its receptor NPBWR1 leads to adiposity — placing NPB among the signals that control metabolism and energy homeostasis. **PMID 34205710**

• **NPB and W as an emerging transmitter system** (Review, 2006). A review of neuropeptide B and W as the endogenous ligands of GPR7 (NPBW1) and GPR8 (NPBW2). It maps their expression — highest in the amygdala and feeding-related hypothalamic nuclei — and notes that brain infusion of these ligands modulates feeding and the release of corticosterone, prolactin and growth hormone while influencing pain. Knockout of NPB or its receptor gives a gender-specific phenotype, with moderate obesity in males. **PMID 16847439**

## Interactions

A PubMed search for interaction studies of this compound with any drug (November 6, 2026, 3 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 human adverse-event data exist: no published study has administered neuropeptide B to people<br>• In animals, central NPB promotes deep sleep and reduces locomotor activity (PMID 21203369) and alters feeding and energy balance (PMID 34205710) — effects of a signalling peptide, not a safety profile<br>• NPB changes the release of stress and pituitary hormones (PMID 16847439), so systemic effects would be expected if it were administered<br>• Material sold online as 'neuropeptide B' or 'NPB' is an unregulated research chemical of unverified content | • Not a medicine: no FDA application or label, and no approval anywhere<br>• No human dosing, interaction, pregnancy or long-term safety data exist for administered NPB<br>• It is a laboratory research peptide, not a treatment<br>• Its roles in appetite, sleep and pain are physiology, not a basis for self-administration |

## Five questions to ask

1. Neuropeptide B (NPB) 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 Neuropeptide B (NPB)? 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 human adverse-event data exist: no published study has administered neuropeptide b to people?
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?

Grey Peptides is a vendor-neutral encyclopedia: it sells nothing and names no seller. This sheet is educational, not medical advice, and is not a prescription.