BRING THIS TO YOUR DOCTOR · GREY PEPTIDES

PACAP

Also called: PACAP-38; PACAP38; PACAP-27; Pituitary adenylate cyclase-activating polypeptide

What it is

An endogenous neuropeptide (PACAP-38/-27) that provokes migraine on infusion; a PACAP antibody reduced migraine days in a phase 2 trial; not a medicine itself.

Approval status

Research Chemical. Not a medicine: PACAP itself is used only as a research provocation agent, and openFDA's Drugs@FDA index returns no record for it (searched October 3, 2026). The antibody Lu AG09222, which blocks it, completed a phase 2 migraine trial (PubMed 39231342).

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

Used in human trials

No manufacturer dose exists for this use: these are amounts given in published trials, not recommendations.

Protocol and source	Dose	Frequency	Duration	Route
Study: provocation in healthy volunteers **[Human study]** PMID 22174350	10 pmol/kg/min (PACAP38)	Single 20-minute infusion	Single session	Infusion

Educational information, not medical advice. Each dose above is tagged with its source: an approved label, a published human study, animal data, or amounts reported by users. 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 12 human studies carded on the page (15 study cards in all):

- **PACAP-38 attacks with CGRP blocked** (Human, 2025). In 38 migraine patients, PACAP-38-induced migraine attacks occurred in 10 of 19 after eptinezumab and 12 of 19 after placebo (P = 0.74), and headache intensity did not differ. **PMID 40229719**
- **Sumatriptan and PACAP-38 migraine** (Human, 2021). Of 26 patients, 15% developed a PACAP-38-induced attack on sumatriptan versus 42% on placebo (p = 0.016); sumatriptan constricted the PACAP-38-dilated superficial temporal artery. **PMID 33567890**
- **PACAP-27 provocation** (Human, 2020). PACAP-27 provoked migraine-like attacks in 11 of 20 patients (55%) versus 2 after placebo (10%; p = 0.022), with greater headache intensity and duration. **PMID 31299857**

Interactions

Human interaction studies found on PubMed (search of October 3, 2026):

- With sumatriptan: early sumatriptan reduced PACAP-38-induced migraine attacks (15% vs 42%) and constricted the dilated temporal artery (PMID 33567890)
- With eptinezumab (CGRP antibody): did not reduce PACAP-38-induced migraine attacks (53% vs 63%, P = 0.74) (PMID 40229719)
- With glibenclamide: did not change PACAP-38-induced headache or haemodynamic changes in healthy volunteers (PMID 35301859)

Side effects and cautions

Reported side effects	Contraindications and cautions
• Headache and migraine-like attacks in people with migraine • Dilation of cranial arteries	• Not approved for any use

Five questions to ask

1. PACAP 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 PACAP? This sheet lists the interactions on record.
3. Which side effects should make me stop and call you, for example headache and migraine-like attacks in people with migraine?
4. Do any of the cautions on this sheet apply to me, such as: Not approved for any use?
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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