BRING THIS TO YOUR DOCTOR · GREY PEPTIDES

Sialorphin

Also called: QHNPR; Vcsa1 peptide; SMR1 pentapeptide

What it is

Sialorphin is the rat pentapeptide Gln-His-Asn-Pro-Arg (QHNPR), the Vcsa1/SMR1 gene product and the counterpart of human opiorphin (PMID 12835417). It is not an opioid — it inhibits neutral endopeptidase (neprilysin), protecting substance P and the enkephalins, so endogenous opioid analgesia is amplified; it is androgen-regulated and also relaxes penile smooth muscle and restores erectile function in ageing rats (PMID 17026587). It is an endogenous 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 drug record for sialorphin (searched November 7, 2026). It is an endogenous rat peptide (Vcsa1/SMR1 product) studied as a neprilysin inhibitor and an analgesic and erectile-function lead; development has not reached an approved human treatment and the evidence is animal and cell work. Its human counterpart is opiorphin.

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

No established human dose

Sialorphin is a rat peptide that has never been given to people as a treatment. The work is in rats, mice and cells, where synthetic peptide is given by injection or into tissue 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:

• **Discovery: sialorphin inhibits neprilysin and relieves pain via opioid receptors** (In Vitro, 2003). Sialorphin was shown to bind membrane-anchored neutral endopeptidase (neprilysin) in rat kidney and to competitively inhibit its breakdown of substance P and Met-enkephalin; given intravenously it produced potent analgesia in two rat injury-pain models, an effect requiring mu- and delta-opioid receptors — establishing sialorphin as a natural NEP regulator that protects endogenous enkephalins (a discovery study). **PMID 12835417**

• **Androgen-regulated sialorphin modulates male rat sexual behaviour** (Animal, 2004). In intact male rats, sialorphin given before pairing with a receptive female modulated the mating pattern in a dose-related way — increasing intromissions and apparent sexual arousal with a dual facilitative-or-inhibitory effect on performance depending on amount — consistent with a role for this androgen-regulated peptide in balancing male sexual response (a behavioural study). **PMID 15555512**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 7, 2026, 1 record) 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 sialorphin to people • In animals its analgesia works through endogenous opioid pathways; one study specifically reported potentiation of enkephalin without signs of toxicity such as motor dysfunction (PMID 32759368) — an animal finding, not a human safety profile • Its androgen regulation and dose-dependent, dual effects on male sexual behaviour (PMID 15555512) indicate context-dependent actions beyond analgesia • Material sold online as 'sialorphin' is an unregulated research chemical of unverified content	• Not a medicine: no FDA application or label, and no approval anywhere • No human dosing, interaction, pregnancy or long-term safety data exist for administered sialorphin • It is an endogenous rat research peptide, not a treatment • Its opioid-potentiating and hormone-linked actions warrant caution about effects beyond pain in any use

Five questions to ask

1. Sialorphin 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 Sialorphin? 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 sialorphin 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.