Homocarnosine

Also called: gamma-aminobutyryl-L-histidine; GABA-histidine; homocarnosine dipeptide

What it is

Homocarnosine is a brain histidine dipeptide, gamma-aminobutyryl-L-histidine (GABA + histidine), the GABA analog of carnosine (PMID 32361909). Concentrated in the central nervous system, its brain level tracks GABA and seizure control in epilepsy and rises with anticonvulsant therapy (PMID 10840398); like its family it is an antioxidant that scavenges reactive carbonyls and protects neurons and DNA (PMIDs 14505328, 21034531). It is an endogenous research dipeptide, 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 homocarnosine (searched November 7, 2026). It is an endogenous brain dipeptide (GABA-histidine) studied in neurochemistry and epilepsy; there is no therapeutic development and no registered interventional trial of giving it to people. Unlike carnosine and anserine it is not established as a dietary supplement.

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

No established human dose

Homocarnosine is a dipeptide the brain makes; it has never been given to people as a treatment. Human studies measure it in brain or cerebrospinal fluid rather than administering it, and cell and animal work uses experimental concentrations 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

The 1 human study carded on the page (6 study cards in all):

• **Gabapentin raises brain GABA and homocarnosine in epilepsy patients** (Human, 2000). Using brain magnetic resonance spectroscopy in epilepsy patients, a first dose of gabapentin promptly raised brain GABA, and daily therapy increased both GABA and homocarnosine (and pyrrolidinone) — consistent with homocarnosine accumulating with sustained anticonvulsant therapy and accompanying partial seizure protection (a human-marker study; homocarnosine was measured, not administered). **PMID 10840398**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 7, 2026, 6 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 homocarnosine to people • It is part of the GABA system; its brain level is a marker studied in epilepsy, not an administered therapy (PMID 10840398) — an observation, not a safety profile • Inherited disorders of its metabolism exist (homocarnosinosis, serum carnosinase deficiency), reflecting its role in human neurochemistry (PMID 16309980) • Material offered online as 'homocarnosine' 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 homocarnosine • It is an endogenous brain research dipeptide, not a treatment • Unlike carnosine and anserine, it is not established as a dietary supplement

Five questions to ask

1. Homocarnosine 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 Homocarnosine? 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 homocarnosine 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.