Beta-Casomorphin-7 (BCM-7)

Also called: BCM-7; beta-casomorphin; b-casomorphin-7; casomorphin-7

What it is

Beta-casomorphin-7 (BCM-7) is an opioid heptapeptide (Tyr-Pro-Phe-Pro-Gly-Pro-Ile) released from cow's-milk beta-casein during digestion, far more from the A1 variant than the A2 (PMID 36444023). It is a food-derived 'exorphin' with mu-opioid activity and the basis of 'A2 milk' products. Popular claims tying A1 milk / BCM-7 to autism, diabetes and heart disease are unproven (EFSA found no cause-and-effect link); animal and cell studies often show protective effects. It is a dietary and research peptide, not an approved medicine.

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 beta-casomorphin-7 (searched November 7, 2026). It is a peptide formed during digestion of milk beta-casein, studied as a dietary bioactive; the European Food Safety Authority's 2009 review found no cause-and-effect relationship between dietary beta-casomorphins and the non-communicable diseases popularly attributed to A1 milk.

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

No established human dose

Beta-casomorphin-7 is not taken as a product — it forms in the gut when milk beta-casein is digested. No regulator has approved it as a treatment and no human therapeutic dose exists, so no amount is printed here.

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:

• **Beta-casomorphin: a complete health perspective (review)** (Review, 2020). A comprehensive review of BCM and its derived peptides — their release from milk during gastrointestinal and enzymatic digestion, structure and properties, immunological aspects and claimed links to human health in infants and adults, plus detection methods — written to present the evidence 'in a cyclopedic perspective' and explicitly leave the pros-and-cons judgement to the reader, reflecting an unsettled field. **PMID 32799161**

• **A1 milk releases more BCM-7 than A2 during simulated digestion** (In Vitro, 2022). Using in-vitro static gastrointestinal digestion of bovine milk and cheeses, BCM-7 (the Val-Ile... fragment of beta-casein) was released from both A1 and A2 samples but more markedly from the A1 variant; the amount released depended on the digestive enzymes and the protease-to-protein ratio, underscoring that digestion conditions shape any A1-versus-A2 difference (a mechanistic study). **PMID 36444023**

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 controlled human safety data for BCM-7 itself; dietary exposure is studied via A1-versus-A2 milk • Popular claims linking A1 milk / BCM-7 to autism, type-1 diabetes and heart disease are UNPROVEN — EFSA's 2009 review found no cause-and-effect relationship • Some short-term human studies report less digestive discomfort with A2 than A1 milk, but the evidence is limited and mixed (a milk-comparison signal, not a BCM-7 safety profile) • In animal/cell models BCM-7 is often protective (kidney injury, fibrosis, anti-tumour immunity) via opioid and non-opioid pathways — its biology is context-dependent • Material sold online as 'beta-casomorphin-7' is an unregulated research chemical	• Not a drug: no FDA application or label, and no approval anywhere • No human dosing, interaction, pregnancy or long-term safety data exist for BCM-7 as an administered compound • It is a dietary digestion product and a research peptide, not a treatment • Disease claims attached to A1 milk are not established; dietary choices should not be based on them as if proven

Five questions to ask

1. Beta-Casomorphin-7 (BCM-7) 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 Beta-Casomorphin-7 (BCM-7)? 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 controlled human safety data for bcm-7 itself?
4. Do any of the cautions on this sheet apply to me, such as: Not a drug: 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?

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