Romurtide

Also called: muroctasin; MDP-Lys(L18); DJ-7041; Romurtida

What it is

Romurtide (muroctasin, MDP-Lys(L18)) is muramyl dipeptide extended by a stearoyl lysine; it makes monocytes release G-CSF and other growth factors (PMID 1705535). In 131 people with lung cancer, 100 or 200 µg under the skin for six days sped white-cell recovery after chemotherapy against no treatment (PMID 2719748). It was marketed in Japan as Nopia (KEGG DRUG D01722) and never approved in the US.

Approval status

Not FDA Approved. Marketed in Japan as Nopia for low white-cell counts after cancer treatment: KEGG DRUG D01722 lists the trade name and an antileukopenic use, and a 1996 lecture describes it as widely used to raise white-cell and platelet counts in cancer patients (PMID 8808264). KEGG MEDICUS's index of Japanese package inserts (October 21, 2026 edition) lists no romurtide product, so no Japanese label was read. Never approved in the US: Drugs@FDA and openFDA hold no record (searched November 4, 2026).

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

Used in human trials

There is no FDA label. A label from outside the US exists (see the regulatory status on this page) but was not read for this page: these are amounts given in published trials, not recommendations.

Protocol and source	Dose	Frequency	Duration	Route
Dose-finding: leukopenia after chemotherapy or radiotherapy **[Human study]** PMID 3190800	200 or 400 µg	Daily, or every other day	6 days (daily) or 5 days (alternate)	Subcutaneous
Randomised trial: lung cancer chemotherapy **[Human study]** PMID 2719748	100 or 200 µg	Once daily	6 days	Subcutaneous
Crossover trial: lymphoma chemotherapy **[Human study]** PMID 3058133	200 µg	Once daily	10 days, from day 4 of the cycle	Subcutaneous
Study: leukopenia during radiotherapy **[Human study]** PMID 9350244	200 µg	On radiotherapy days, 5 days a week	2 weeks (10 doses)	Subcutaneous

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 11 human studies carded on the page (28 study cards in all):

• **Phase 1 and blood levels in healthy men** (Human, 1988). Thirty-five healthy men were given romurtide under the skin. The highest dose group ran a mild fever of about 38 °C, and redness where the needle went in was common but did not track dose; one man had a positive CRP and one a small rise in a liver enzyme that came back to normal while he was still being dosed. White counts rose, driven by neutrophils, and lymphocytes responded more strongly to mitogens. After a single 400 µg dose the peak level was about 6.9 ng/mL at roughly 1.3 hours and the half-life 2.7 hours; peaks after 100 and 200 µg rose in step with dose. The authors proposed 200 to 400 µg for patient trials. **PMID 3263868**

• **Dose and schedule in 102 patients with leukopenia** (Human, 1988). People whose white counts had dropped during chemotherapy or radiotherapy received 200 or 400 µg under the skin, either daily for six days or every other day over five days. Daily dosing worked best, and 400 µg was only a little better than 200 µg. About 42% had a good or excellent rise in white cells, more often with solid tumours than with blood cancers. Fever was the main side effect, larger at the higher dose and on alternate days, and usually settled with fever medicine. Weighing both, the authors chose 200 µg a day for six days. There was no untreated comparison group. **PMID 3190800**

• **Randomised trial: 131 lung cancer patients** (Human, 1989). Patients whose white count fell to 3,000 per cubic millimetre or less after a first course of chemotherapy were assigned by sealed envelope to 200 µg, 100 µg or no treatment, injected daily for six days. White cells, mainly neutrophils, came back faster in both treated groups, and bone marrow samples held more young neutrophils. In the second chemotherapy course only the 200 µg group kept the advantage. Fever and pain at the injection site were common in both treated groups. A Japanese-language report of the same trial is listed under References. **PMID 2719748**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 4, 2026, 10 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
• Fever, the most common effect, larger at 400 than 200 µg and with alternate-day dosing; usually eased by fever medicine (PMID 3190800) • A rise to about 38 °C at the highest phase 1 dose in healthy men (PMID 3263868) • Redness, pain or a reaction at the injection site (PMIDs 3263868, 2719748, 2660519) • Rash with fever in one of 15 lung cancer patients (PMID 2919891) • Side effects of any kind in about a third of lymphoma patients, mostly tolerable (PMID 3058133) (1 more on the page)	• Not available outside Japan and never approved in the US; whether Nopia is still sold in Japan could not be confirmed • Its trials were in adults whose white counts had already fallen after cancer treatment; it was given under hospital supervision • In mice, giving it before chemotherapy or radiation did not prevent the drop in white cells; it helped only when given afterwards (PMID 3263871) • Joint inflammation in dogs and rats (PMIDs 3190795, 8926048) is a reason for caution in people with inflammatory joint disease, though no human trial reported it • It is not the same drug as mifamurtide or murabutide, and their data do not transfer

Five questions to ask

1. Romurtide is listed here as “Not FDA Approved”. 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 Romurtide? This sheet records none published, which does not mean none exist.
3. Which side effects should make me stop and call you, for example fever?
4. Do any of the cautions on this sheet apply to me, such as: Not available outside Japan and never approved in the US?
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.