Disomotide

Also called: gp100:209-217(210M); gp100 (210M); g209-2M; G9-209-2M; MPS-22

What it is

Disomotide (gp100:209-217(210M), IMDQVPFSV) is a modified gp100 epitope given as a melanoma vaccine in oil adjuvant. It raises peptide-specific CD8 T cells in most recipients (PMIDs 12697882, 14760090) and, added to high-dose interleukin-2 in a randomised phase 3 trial, raised the response rate from 6% to 16% (PMID 21631324), though three earlier phase 2 trials of the combination found no benefit (PMID 18467720). It is not approved.

Approval status

Not FDA Approved. Never approved: Drugs@FDA (openFDA) holds no application for disomotide or a gp100 peptide vaccine (searched November 3, 2026), and ChEMBL records a highest clinical phase of 2. It was supplied to trial sites by the National Cancer Institute under an investigational new drug application (PMID 21631324). Of 19 registered studies, 16 are completed, one terminated and one withdrawn; none is recruiting.

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: with GM-CSF and a TLR9 agonist, stage IV melanoma **[Human study]** PMID 22495394	100 µg per vaccination site	Days 1 and 15 of each 28-day cycle, at three rotating sites	Up to 13 cycles	Subcutaneous injection in oil emulsion

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 16 human studies carded on the page (16 study cards in all):

• **Phase 3: the vaccine added to high-dose interleukin-2** (Human, 2011). 185 patients with HLA-A*0201 and advanced melanoma were randomised to high-dose interleukin-2 alone or to the peptide in Montanide ISA-51 once per cycle followed by the same interleukin-2. Centrally reviewed response was 16% against 6%, progression-free survival 2.2 against 1.6 months, and median overall survival 17.8 against 11.1 months. Arrhythmias, mostly transient tachycardia, were more common in the vaccine group. **PMID 21631324**

• **Three phase 2 trials of the same combination** (Human, 2008). The Cytokine Working Group gave the peptide in weeks 1, 4, 7 and 10 with high-dose interleukin-2 on three different schedules. Among 121 assessable patients of 131 enrolled, 16.5% responded overall, by trial 23.8%, 12.5% and 12.8%, with 11 complete responses. None of the blood immune measures predicted who benefited, and the authors concluded the combination had not reproduced the earlier 42%. **PMID 18467720**

• **Phase 2 with low-dose interleukin-2** (Human, 2006). 26 patients with advanced melanoma received the peptide every three weeks with low-dose subcutaneous interleukin-2. There were no objective responses, no grade 4 toxicity, and neither ELISPOT nor tetramer assays showed convincing induction of peptide-reactive T cells, which the authors read as a warning about giving peptides alongside interleukin-2. **PMID 16365605**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 3, 2026, 0 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
• Pain, redness and granuloma formation at the injection site, the commonest events in the adjuvant trials (PMIDs 11559721, 12491520) • Fever and lethargy of mild or moderate grade (PMIDs 11559721, 12491520) • Transient arrhythmias, mostly sinus tachycardia and supraventricular events, more frequent when the peptide was added to high-dose interleukin-2 (PMID 21631324) • The toxicity of high-dose interleukin-2 itself, which dominated the phase 3 trial in both groups (PMID 21631324) • Grade 3 colitis, visual change and headache in a trial that also gave interleukin-12, resolving when the interleukin-12 was stopped and the peptide continued (PMID 17200357) (1 more on the page)	• Only inside a clinical trial: it is not made or sold, and no trial is recruiting • HLA type: every trial required HLA-A*0201, because nothing else presents this peptide • The combinations matter more than the peptide: high-dose interleukin-2 trials demanded normal heart, lung and kidney function • Autoimmune disease was an exclusion in these vaccine trials, as a vaccine against a self protein carries that question with it

Five questions to ask

1. Disomotide 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 Disomotide? This sheet records none published, which does not mean none exist.
3. Which side effects should make me stop and call you, for example pain?
4. Do any of the cautions on this sheet apply to me, such as: Only inside a clinical trial: it is not made or sold, and no trial is recruiting?
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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