BRING THIS TO YOUR DOCTOR · GREY PEPTIDES

Motixafortide

Also called: Aphexda; BL-8040; BKT140

What it is

A cyclic peptide CXCR4 inhibitor approved as Aphexda in September 2023 to mobilise blood stem cells, with filgrastim, for autologous transplant in multiple myeloma.

Approval status

FDA Approved. Approved in the US as Aphexda (motixafortide), NDA 217159, on September 8, 2023, in combination with filgrastim to mobilise haematopoietic stem cells for collection and autologous transplantation in multiple myeloma (Drugs@FDA via openFDA and the Aphexda label, read October 3, 2026; sponsor now listed as Ayrmid Pharma).

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

Manufacturer's recommended dosing (FDA label)

From the prescribing information. Other doses studied, if any, are in the full dosing data below.

Protocol and source	Dose	Frequency	Duration	Route
Label: myeloma stem-cell mobilisation **[Approved label]** Aphexda prescribing information, section 2 (DailyMed set e704b2db, effective June 4, 2026)	1.25 mg/kg (actual body weight)	Once; a second dose may precede a third apheresis	1 to 2 doses	Subcutaneous

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
First myeloma study (2014) **[Human study]** PMID 24246358	Up to 0.9 mg/kg	Once	Single dose	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 (18 study cards in all):

• **GENESIS phase 3, 122 patients** (Human, 2023). With filgrastim, 92.5% on motixafortide collected at least 6 million CD34+ cells per kg within two apheresis sessions against 26.2% on placebo, and 88.8% against 9.5% in one session. The commonest side effects were transient grade 1 or 2 injection-site reactions: pain in 50%, redness in 27.5% and itching in 21.3%. **PMID 37069359**

• **Why GENESIS was designed** (Human, 2019). The protocol paper notes that about 45% of patients with multiple myeloma fail to mobilise optimally with filgrastim alone, and sets the target of 6 million CD34+ cells per kg in up to two sessions. **PMID 31495201**

• **First study in myeloma, 18 patients** (Human, 2014). Given once alongside cyclophosphamide and filgrastim at doses up to 0.9 mg/kg, it caused no grade 3 or 4 toxicity; at the top dose a single apheresis collected 20.6 million CD34+ cells per kg on average, and transplanted cells engrafted in a median of 12 days for neutrophils. **PMID 24246358**

Interactions

A PubMed search for interaction studies of this compound with any drug (October 3, 2026, 2 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
• Injection-site pain, redness and itching • Systemic and allergic-type reactions, reduced by premedication • Raised white cell counts • Injection-site reactions and systemic reactions needing intervention were more common than with plerixafor in a 2026 real-world comparison • Injection-site pain, redness and itching, and flushing, which premedication aims to reduce	• Anaphylactic shock and hypersensitivity reactions: premedication is required • Injection-site reactions • Tumour cell mobilisation in patients with leukaemia: not for use in leukaemia • Leukocytosis • Embryo-fetal toxicity

Five questions to ask

1. Is Motixafortide right for me, and is the labelled dose on this sheet right for my weight, age, kidney and liver function?
2. Here are the medicines and supplements I take. Do any of them interact with Motixafortide? This sheet records none published, which does not mean none exist.
3. Which side effects should make me stop and call you, for example injection-site pain?
4. Do any of the cautions on this sheet apply to me, such as: Anaphylactic shock and hypersensitivity reactions: premedication is required?
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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