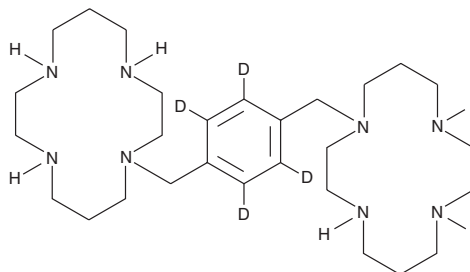


PRODUCT INFORMATION



Plerixafor-d₄ Item No. 26490

CAS Registry No.: 1246819-87-3
Formal Name: 1,4-bis((1,4,8,11-tetraazacyclotetradecan-1-yl)methyl)benzene-d₄
MF: C₂₈H₅₀D₄N₈
FW: 506.8
Chemical Purity: ≥95% (Plerixafor)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Plerixafor-d₄ is intended for use as an internal standard for the quantification of plerixafor (Item No. 10011332) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Plerixafor-d₄ is supplied as a solid. A stock solution may be made by dissolving the plerixafor-d₄ in the solvent of choice, which should be purged with an inert gas. Plerixafor-d₄ is slightly soluble in methanol.

Description

Plerixafor is a partial antagonist of chemokine receptor 4 (CXCR4) with IC₅₀ values ranging from 0.02 to 0.13 µg/ml for inhibiting calcium flux in peripheral blood mononuclear cells (PBMCs), various types of T cells, and mouse lymphocytic leukemia cells.¹ It is selective for CXCR4 over CXCR1-3 and CXCR5-9 (IC₅₀s = >25 µg/ml). Plerixafor decreases infectious virus content in the supernatant of Jurkat cells chronically infected with HIV-1(III_B) (EC₅₀ = ~0.02 µg/ml).² It rapidly mobilizes murine and human hematopoietic stem and murine long-term repopulating cells for transplantation alone and, with a synergistic effect, when used in combination with G-CSF.³ Plerixafor also increases T cell trafficking in mouse blood, spleen, and central nervous system.^{4,5} Plerixafor (1.25 mg/kg twice per day) decreases the number of 4T1 murine mammary carcinoma cells in the lung in a mouse model of lung metastasis.⁶

References

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3. Hess, D.A., Bonde, J., Craft, T.C., et al. *Biol. Blood Marrow Transplant* **13(4)**, 398-411 (2007).
4. Bernardini, G., Sciumè, G., Bosisio, D., et al. *Blood* **111(7)**, 3626-3634 (2008).
5. McCandless, E.E., Zhang, B., Diamond, M.S., et al. *Proc. Natl. Acad. Sci. U.S.A.* **105(32)**, 11270-11275 (2008).
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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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