

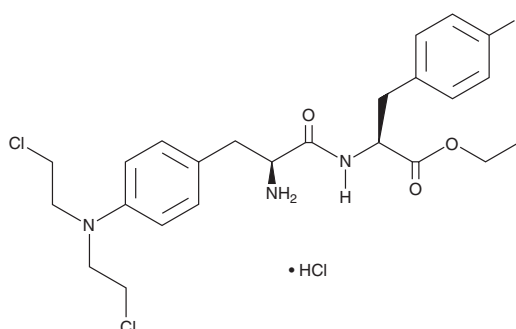
PRODUCT INFORMATION



Melflufen (hydrochloride)

Item No. 45461

CAS Registry No.: 380449-54-7
Formal Name: 4-[bis(2-chloroethyl)amino]-L-phenylalanyl-4-fluoro-L-phenylalanine, ethyl ester, monohydrochloride
Synonyms: J1, Melphalan Flufenamide
MF: $C_{24}H_{30}Cl_2FN_3O_3 \cdot HCl$
FW: 534.9
Purity: $\geq 98\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Melflufen (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the melflufen (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Melflufen (hydrochloride) is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

Melflufen is a prodrug form of the DNA alkylating agent melphalan (Item No. 16665).^{1,2} Melflufen induces apoptosis and inhibits growth in MM.1R, RPMI-8226, and melphalan-resistant RPMI-8226/LR5 multiple myeloma cells in a concentration-dependent manner.¹ It induces DNA damage and inhibits VEGF-induced migration of MM.1S multiple myeloma cells and angiogenesis in human umbilical vascular endothelial cells (HUVECs). Melflufen reduces proliferation and induces cell cycle arrest at the G₂/M phase in KM-H2 and SU-DHL-10 lymphoma cells (IC₅₀s = 0.22 and 0.77 μ M, respectively).² *In vivo*, Melflufen reduces tumor growth and increases survival in DoHH2 lymphoma and MM.1S mouse xenograft models.^{1,2} Formulations containing melflufen have been used in the treatment of refractory multiple myeloma.

References

1. Chauhan, D., Ray, A., Viktorsson, K., *et al.* *In vitro* and *in vivo* antitumor activity of a novel alkylating agent, melphalan-flufenamide, against multiple myeloma cells. *Clin. Cancer Res.* **19(11)**, 3019-3031 (2013).
2. Delforouh, M., Strese, S., Wickström, M., *et al.* *In vitro* and *in vivo* activity of melflufen (J1) in lymphoma. *BMC Cancer* **16**, 263 (2016).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM