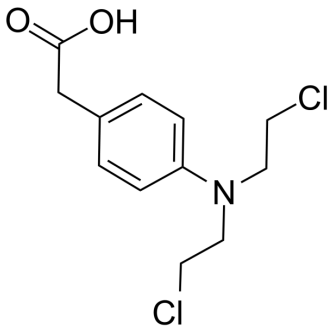
Phenylacetic acid mustard

Cat. No.:	HY-136327
CAS No.:	10477-72-2
Molecular Formula:	$C_{12}H_{15}Cl_2NO_2$
Molecular Weight:	276.16
Target:	DNA Alkylator/Crosslinker
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Phenylacetic acid mustard is the major metabolite of the cancer chemotherapeutic agent Chlorambucil (HY-13593). Chlorambucil is an alkylating agent with antitumor activity[1].
IC_{50} & Target	IC50: metabolite of Chlorambucil[1]
In Vivo	Phenylacetic acid mustard (intraperitoneal injection; 0-20 mg/kg; 15 days) shows consistently 1.8-1.9 times greater antitumour potency thanCHL, it exhibits an ED_{15} value of 8.0 mg/kg[2]. Phenylacetic acid mustard (intraperitoneal injection; 0-20 mg/kg; single dose) cause 50% lethality at the dose 15.9 mg/kg[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Inbred male C3H/He mice[1]
Dosage:	0 mg/kg; 5 mg/kg; 10 mg/kg; 20 mg/kg
Administration:	Intraperitoneal injection; 15 days
Result:	Exhibited anti-tumor activities in vivo.

REFERENCES

[1]. Toni Pettersson-Fernholm, et al. Reactions of 4-bis(2-chloroethyl)aminophenylacetic acid (phenylacetic acid mustard) in physiological solutions.

[2]. F Y Lee, et al. Pharmacokinetic basis for the comparative antitumour activity and toxicity of chlorambucil, phenylacetic acid mustard and, -difluorochlorambucil (CB 7103) in mice.

Caution: Product has not been fully validated for medical applications. For research use only.

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