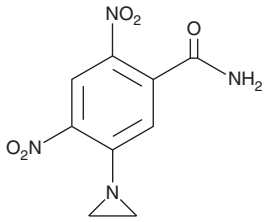
PRODUCT INFORMATION

CB-1954

Item No. 21023

CAS Registry No.:	21919-05-1
Formal Name:	5-(1-aziridinyl)-2,4-dinitro-benzamide
Synonyms:	NSC 115829, Tretazicar
MF:	$C_9H_8N_4O_5$
FW:	252.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 223, 269, 328 nm
Supplied as:	A crystalline 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

CB-1954 is supplied as a crystalline solid. A stock solution may be made by dissolving the CB-1954 in the solvent of choice, which should be purged with an inert gas. CB-1954 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CB-1954 in these solvents is approximately 20 mg/ml.

CB-1954 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CB-1954 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CB-1954 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CB-1954 is a prodrug that is enzymatically activated to generate an antitumor agent that forms DNA-DNA interstrand crosslinks.[1] In rat Walker 256 carcinoma cells, CB-1954 is reduced by NAD(P)H:quinone oxidoreductase (NQO1) to the cytotoxic derivative 5-(aziridin-1-yl)-4-hydroxylamineo 2 nitrobenzamide, a bifunctional alkylating agent.[1]

Reference

1. Knox, R.J., Jenkins, T.C., Hobbs, S.M., *et al.* Bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB 1954) by human NAD(P)H quinone oxidoreductase 2: A novel co-substrate-mediated antitumor prodrug therapy. *Cancer Res.* **60(15)**, 4179-4186 (2000).

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