

## Dacarbazine

## Chemical Properties

CAS No. : 4342-03-4

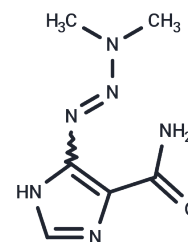
Formula: C<sub>6</sub>H<sub>10</sub>N<sub>6</sub>O

Molecular Weight: 182.18

Storage: Keep away from direct sunlight, Keep away from moisture

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Dacarbazine (DTIC-Dome) is an antineoplastic agent. It has significant activity against melanomas.
Targets(IC50)	Apoptosis, Nucleoside Antimetabolite/Analog, DNA/RNA Synthesis
In vitro	Treatment of Dacarbazine sensitizes melanomas to lysis of peptide-specific CTL and it is mediated through Fas-independent pathway[2].
In vivo	Treatment of combination of Axitinib and DTIC demonstrates significant antitumor activity against melanoma flank xenografts, reduces tumor cell proliferation and decreases the area of tumor necrosis and increases apoptosis. It also reduces metastasis-related factors and prolongs lifespan in mice[3].
Cell Research	Apoptosis assay: UACC903 (UACC) cells treated with or without DTIC (20 μM) for 48 h are incubated with agonist anti-Fas Ab, CH-11 (500 ng/ml), for 5 and 16 h, respectively. To distinguish whether death/apoptosis is mediated by FasR, blocking anti-Fas Ab ZB4 (2 mg/ml) is added in the corresponding groups. At the end of incubation, cells are harvested and stained with propidium iodide and FITC-annexin V (BD PharMingen) for detecting apoptosis according to the instruction provided by the company. Ten thousand cells from each group are collected, and dead and apoptotic cells are analyzed without gating using CellQuest software. (Only for Reference)

## Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 5 mg/mL (27.45 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	5.4891 mL	27.4454 mL	54.8908 mL
5 mM	1.0978 mL	5.4891 mL	10.9782 mL
10 mM	0.5489 mL	2.7445 mL	5.4891 mL
50 mM	0.1098 mL	0.5489 mL	1.0978 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Serrone L, et al. J Exp Clin Cancer Res. 2000, 19(1):21-34.

Yang S, et al. J Immunol. 2004, 172(7):4599-608.

Zhang XH, et al. Oncol Lett. 2013, 6(1):69-74.

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