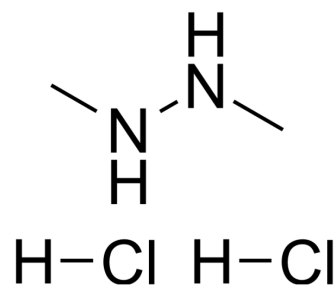


N,N'-Dimethylhydrazine dihydrochloride

Cat. No.:	HY-W460407
CAS No.:	306-37-6
Molecular Formula:	C ₂ H ₁₀ Cl ₂ N ₂
Molecular Weight:	133.02
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



BIOLOGICAL ACTIVITY

Description	N,N'-Dimethylhydrazine (1,2-Dimethylhydrazine) dihydrochloride is a tumor inducer that induces colon tumors in rodents ^[1] ^[2] .	
In Vivo	N,N'-Dimethylhydrazine (DMH) (20 mg/kg; sc; once weekly, 24 wk) can induce colon cancer in ICR mice ^[1] . N,N'-Dimethylhydrazine (20 mg/kg ; sc; 20 wk) induces intraperitoneal intestinal tumors in rats, an effect that is potently inhibited by Lactobacillus acidophilus. Mice that consumed a beef diet that mimicked a "Western" diet had a higher incidence of colon cancer than grain-fed mice (83% vs. 31%, respectively) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	ICR mouse ^[1]
	Dosage:	20 mg/kg
	Administration:	sc; once weekly for 24 weeks; sacrificed mouse after between 23 and 33 weeks.
	Result:	Induced colon cancer in ICR mice.
	Animal Model:	Male inbred F344 rats ^[1]
	Dosage:	20 mg, 4 mg/mL dissolved in normal saline containing 1.5% EDTA (pH 6.4 and filter sterilized)
	Administration:	sc; weekly for 20 or 35 weeks
	Result:	Produced a higher incidence of adenocarcinomas in the small and large intestines of animals that were consuming the meat diet.

REFERENCES

[1]. Nakamura S, et al. Morphogenesis of colonic adenomas in mice treated with N,N'-dimethylhydrazine dihydrochloride. Acta Pathol Jpn. 1982 May;32(3):473-81.

[2]. Goldin BR, et al. Effect of Lactobacillus acidophilus dietary supplements on 1,2-dimethylhydrazine dihydrochloride-induced intestinal cancer in rats. J Natl Cancer Inst. 1980 Feb;64(2):263-5.

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

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