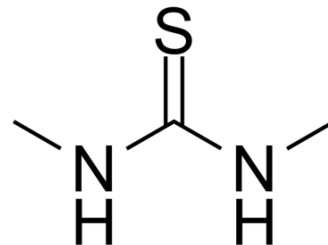


N,N'-Dimethylthiourea

Cat. No.:	HY-W027951
CAS No.:	534-13-4
Molecular Formula:	C ₃ H ₈ N ₂ S
Molecular Weight:	104.17
Target:	Others
Pathway:	Others
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	N,N'-Dimethylthiourea (DMTU), isolated from <i>Allii Sativi Bulbus</i> , is an orally active scavenger of hydroxyl radical ($\cdot\text{OH}$) and blocks $\cdot\text{OH}$ production by activated neutrophils in vitro. N,N'-Dimethylthiourea protects against water-immersion restraint stress (WIRS)-induced gastric mucosal lesions in rats by exerting its antioxidant action including $\cdot\text{OH}$ scavenging and anti-inflammatory action ^{[1][2]} .
In Vivo	N,N'-Dimethylthiourea (DMTU; 1, 2.5, or 5 mmol/kg; orally) administered at 0.5 h before the onset of WIRS reduces the severity of gastric mucosal lesions with attenuation of the changes in the levels of gastric mucosal MPO, pro-inflammatory cytokines, LPO, NOx, nonprotein SH, and vitamin C and gastric adherent mucus found at 3 h after the onset of WIRS in a dose-dependent manner in Male Wistar rats aged 6 weeks ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Yoshiji Ohta, et al. Protective effect of N,N'-dimethylthiourea against stress-induced gastric mucosal lesions in rats. *Fundam Clin Pharmacol*. 2017 Jun;31(3):319-328.
- [2]. Zhongyi Zhang, et al. Analysis of volatile compounds in fermented black garlic by GC-MS.

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

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