

PRODUCT INFORMATION

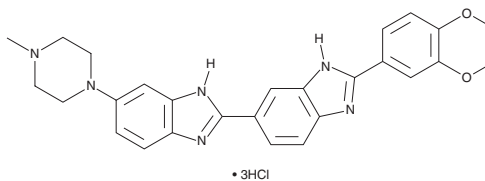


DMA (hydrochloride)

Item No. 30416

CAS Registry No.: 2095832-33-8
Formal Name: 2'-(3,4-dimethoxyphenyl)-6-(4-methylpiperazin-1-yl)-1H,3'H-2,5'-bibenzo[d]imidazole, trihydrochloride

MF: C₂₇H₂₈N₆O₂ • 3HCl
FW: 577.9
Purity: ≥98%
UV/Vis.: λ_{max}: 236, 273, 355 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DMA (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the DMA (hydrochloride) in water. The solubility of DMA (hydrochloride) in water is approximately 15.9 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DMA is a bisbenzimidazole radioprotective agent.^{1,2} *In vivo*, DMA (300 mg/kg) decreases radiation-induced lethality without affecting radiation-induced tumor regression in an Ehrlich murine spontaneous adenocarcinoma model.¹ It prevents radiation-induced damage of intestinal, hepatic, and splenic tissues, increases in splenic malondialdehyde (MDA) production, and decreases in splenic superoxide dismutase (SOD) activity in a B16/F10 murine melanoma model when administered at a dose of 50 mg/kg.¹

References

1. Nimesh, H., Tiwari, V., Yang, C., *et al.* Preclinical evaluation of DMA, a bisbenzimidazole, as radioprotector: Toxicity, pharmacokinetics, and biodistribution studies in Balb/c mice. *Mol. Pharmacol.* **88(4)**, 768-778 (2015).
2. Tiwari, V., Kamran, M.Z., Ranan, A., *et al.* Akt1/NFκB signaling pathway activation by a small molecule DMA confers radioprotection to intestinal epithelium in xenograft model. *Free Rad. Biol. Med.* **108**, 564-574 (2017).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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