Product Data Sheet

Product Name: DDMS
Cat. No.: GC10778

Chemical Properties

Cas. No.	206052-03-1		
Chemical Name	12,12-dibromo-N-(methylsulfonyl)-11-dodecenamide		
SMILES	BrC(=CCCCCCCCCC(=O)NS(=O)(=O)C)Br		
Formula	$C_{13}H_{23}Br_2NO_3S$	M.Wt	433.2
Solubility	≤20mg/ml in DMSO;30mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	DDMS		

Background

DDMS is a CYP4A2 enzyme inhibitor.

Biosynthesis of 20-HETE from arachidonic acid by the cytochrome P450 4A (CYP450 4A) isoforms is a key component of vascular homeostasis, especially in renal circulation.

In vitro: To determine whether inhibition of 20-HETE contributes to the vasodilatory effects of NO, the effects of DDMS on the response to SNP were examined in rat renal arterioles preconstricted with phenylephrine). Results showed that after DDMS treatment, SNP could increase vascular diameter by only 17% [1].

In vivo: The effects of DDMS on the mean arterial pressure and renal blood flow responses to infusion of an NO donor and a synthase inhibitor were also examined. It was found that infusion of MAHMA NONOate at 1, 3, 5, and 10 nmol/min was able to reduce mean arterial pressure by 16, 30, 40, and 48 mm Hg and lowered renal vascular resistance by 15 %, 26 %, 30%, and 34% of control. In addition, after DDMS treatment at

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10 mg/kg, the mean arterial pressure and renal vascular resistance responsed to 1-hexamine, 6-(2-hydroxy-1-methyl-2-nitrohydrazino)N-methyl averaged only 20% of those seen during control [1].

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] Alonso-Galicia, M. ,Drummond, H.A.,Reddy, K.K., et al. Inhibition of 20-HETE production contributes to the vascular responses to nitric oxide. Hypertension 29, 320-325 (1997).