Product Data Sheet

Product Name: AMI5
Cat. No.: GC17546

Chemical Properties

Cas. No.	17372-87-1		
Chemical Name	sodium 2-(2,4,5,7-tetrabromo-6-oxido-3-oxo-3H-xanthen-9-yl)benzoate		
SMILES	BrC1=C([O-])C(Br)=C2C(C(C3=CC=CC=C3C([O-])=O)=C4C=C(Br)C(C(Br)=C4O2)=O)=C1.[Na+].[Na+]		
Formula	$C_{20}H_6Br_4Na_2O_5$	M.Wt	691.85
Solubility	≥ 69.2mg/mL in DMSO	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	AMI5		

Background

IC50: 0.78 and 1.41 μM for Hmt1p and PRMT1, respectively

AMI5 is a non-selective protein methyltransferase inhibitor.

Post-translational protein methylation at lysine and arginine residues is related to the gene expression regulation. The enzymatic activities of protein methyltransferases serve to do covalent modifications in the control of gene transcription.

In vitro: AMI-5 has been identified as a competitive inhibitor of SAM binding and had been shown to inhibit not only PRMTs but also lysine methylation by the Set7 and disruptor of telomeric silencing 1-like (DOT1L) MTases in vitro. Both AMI-5 and its analog AMI-1 have been used as lead compounds for the development of novel MTase-specific inhibitors. Moreover, it was found that AMI-5 could inhibit Set7 in vitro and decrease H3K4m1 in vascular endothelial cells. [1].

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In vivo: Currently, there is no animal study reported.

Clinical trial: Up to now, AMI-5 is still in the preclinical development stage.

Reference:
[1] Okabe J,Fernandez AZ,Ziemann M,Keating ST,Balcerczyk A,El-Osta A. Endothelial transcriptome in response to pharmacological methyltransferase inhibition. ChemMedChem.2014 Aug;9(8):1755-62.