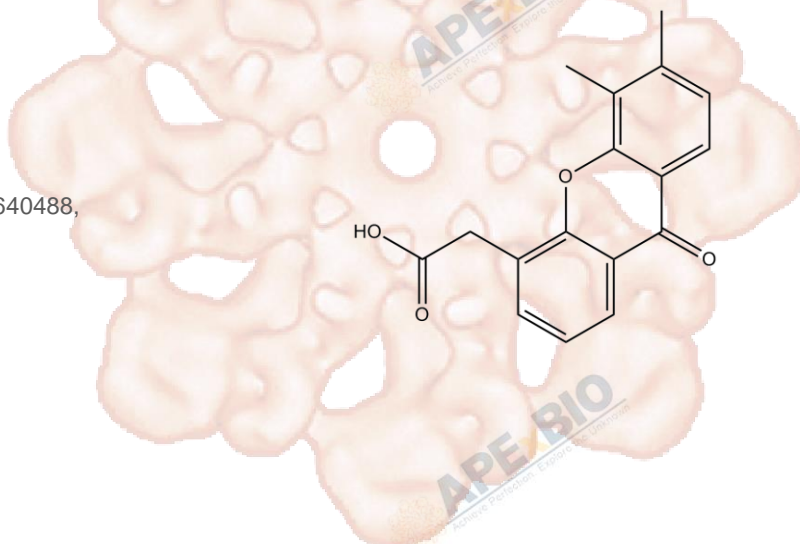


# Product Data Sheet

## DMXAA (Vadimezan)

<b>Cat. No.:</b>	A8233
<b>CAS No.:</b>	117570-53-3
<b>Formula:</b>	C17H14O4
<b>M.Wt:</b>	282.29
<b>Synonyms:</b>	AS-1404, 5,6-MeXAA, NSC-640488, Vadimezan
<b>Target:</b>	Angiogenesis
<b>Pathway:</b>	VDA
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O; insoluble in EtOH; ≥14.1 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		3.5425 mL	17.7123 mL	35.4246 mL
	5 mM		0.7085 mL	3.5425 mL	7.0849 mL
	10 mM		0.3542 mL	1.7712 mL	3.5425 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

Tumnor vascular disrupting agent, apoptosis inducer

IC<sub>50</sub> & Target

62.5 μM (DT-diaphorase), 20 μM (Ki) (DT-diaphorase)

#### Cell Viability Assay

In Vitro

Cell Line:	HECPP cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	IC50: 500 µg/mL, 24 hours
	Applications:	DMXAA did not induce mRNA for TNF or interferons in the HECPP cells. The mRNA of IP-10 was up-regulated following 2 h incubation with DMXAA at 400 µg/mL. Apoptotic cells were seen after 6 h incubation with DMXAA at this concentration. And the numbers increased with prolonged exposure. Apoptotic cell numbers at 24 h increased linearly with increasing dose of DMXAA above 100 µg/mL. The DMXAA concentration that induced 50% apoptosis after incubation for 24 h was 500 µg/mL.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Male 129/Sv mice injected with 344SQ-ELuc cells
	Dosage form:	Intraperitoneal injection, 25 mg/kg
	Applications:	Once tumors were established (day 7 or day 14 for subcutaneous tumors), mice were given 25 mg/kg of DMXAA by i.p. injection. BLI was carried out at 6 and 24 hours. 344SQ-ELuc NSCLC subcutaneous tumors respond dramatically to DMXAA, with a marked (~2-logs) decrease in bioluminescence (BLI) signals post-drug injection. The drop in BLI following DMXAA treatment was not due to direct tumor cell toxicity since DMXAA had no detrimental effect on 344SQ-ELuc cell viability.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

1. Pryke KM, Abraham J, et al. "A Novel Agonist of the TRIF Pathway Induces a CellularState Refractory to Replication of Zika, Chikungunya, and Dengue Viruses." MBio.2017 May 2;8(3). pii: e00452-17.PMID:28465426
2. Sali, Tina M., et al. "Characterization of a Novel Human-Specific STING Agonist that Elicits Antiviral Activity Against Emerging Alphaviruses." PLoS pathogens 11.12 (2015).PMID:26646986

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## References

- [1] Ching L M, Cao Z, Kieda C, et al. Induction of endothelial cell apoptosis by the antivasular agent 5, 6-dimethylxanthenone-4-acetic acid. British journal of cancer, 2002, 86(12): 1937-1942.
- [2] Downey C M, Aghaei M, Schwendener R A, et al. DMXAA Causes Tumor Site-Specific Vascular Disruption in Murine Non-Small Cell Lung Cancer, and like the Endogenous Non-Canonical Cyclic Dinucleotide STING Agonist, 2' 3'-cGAMP, Induces M2 Macrophage Repolarization. PloS one, 2014, 9(6): e99988.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

**APExBIO Technology**

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