

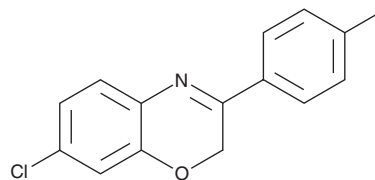
# PRODUCT INFORMATION



## AR-7

Item No. 22946

**CAS Registry No.:** 80306-38-3  
**Formal Name:** 7-chloro-3-(4-methylphenyl)-2H-1,4-benzoxazine  
**MF:** C<sub>15</sub>H<sub>12</sub>ClNO  
**FW:** 257.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 225, 233, 240, 254, 337 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

AR-7 is supplied as a crystalline solid. A stock solution may be made by dissolving the AR-7 in the solvent of choice, which should be purged with an inert gas. AR-7 is soluble in DMSO.

### Description

AR-7 is a retinoic acid receptor α (RARα) antagonist.<sup>1</sup> In mouse fibroblasts, AR-7 (20 μM) increases chaperone-mediated autophagy in an RARα-dependent manner, increases LAMP-2A expression, and inhibits paraquat-induced decreases in cell viability. AR-7 is also selectively cytotoxic to HepG2 cells grown under hypoxic over normoxic conditions (IC<sub>50</sub>s = 10 and >1,000 μM, respectively).<sup>2</sup>

### References

1. Anguiano, J., Garner, T.P., Mahalingam, M., *et al.* Chemical modulation of chaperone-mediated autophagy by retinoic acid derivatives. *Nat. Chem. Biol.* **9(6)**, 374-382 (2013).
2. Das, B.C., Madhukumar, A.V., Anguiano, J., *et al.* Design, synthesis and biological evaluation of 2H-benzo[b][1,4] oxazine derivatives as hypoxia targeted compounds for cancer therapeutics. *Bioorg. Med. Chem. Lett.* **19(15)**, 4204-4206 (2009).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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