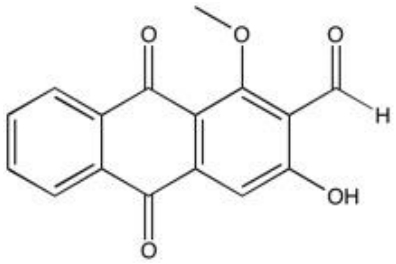
Catalog # 10-2516

Damnacanthal

CAS# 477-84-9

9,10-Dihydroxy-3-hydroxy-1-methoxy-9,10-dioxo-2-anthracenecarboxaldehyde

Lot # X102672



Potent inhibitor of $p56^{lck}$ tyrosine kinase activity (IC_{50} = 17 nM for inhibition of autophosphorylation). Displays 7- to 20-fold selectivity over $p59^{fyn}$ and $p60^{src}$ tyrosine kinases and > 40-fold to 100-fold selectivity over other kinases[1]. Mobilizes intracellular Ca^{2+} in dermal fibroblasts[2]. Inhibits LIM-kinase, impairing cell migration and invasion[3]. A potent inhibitor of angiogenesis[4]. Inhibits mast cell activation[5].

1) Faltynek *et al*. (1995), *Damnacanthal is a highly potent, selective inhibitor of p56lck tyrosine kinase activity*; Biochemistry, **34** 12404
2) Aoki *et al*. (2000), *Mechanism of damnacanthal-induced ;Ca(2+)](i) elevation in human dermal fibroblasts*; Eur. J. Pharmacol., **387** 119
3) Ohashi *et al*. (2014), *Damnacanthal, an effective inhibitor of LIM-kinase, inhibits cell migration and invasion*; Mol. Biol. Cell, **25** 828
4) Garcia-Vilas *et al*. (2017), *The noni anthraquinone damnacanthal is a multi-kinase inhibitor with potent anti-angiogenic effects*; Cancer Letters, **385** 1
5) Garcia-Vilas *et al*. (2015), *Damnacanthal inhibits IgE receptor-mediated activation of mast cells*; Mol. Immunol., **65** 86

PHYSICAL DATA

Molecular Weight:	282.25
Molecular Formula:	$C_{16}H_{10}O_5$
Purity:	98% by TLC NMR: (Conforms)
Solubility:	DMSO (up to 7 mg/ml)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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