

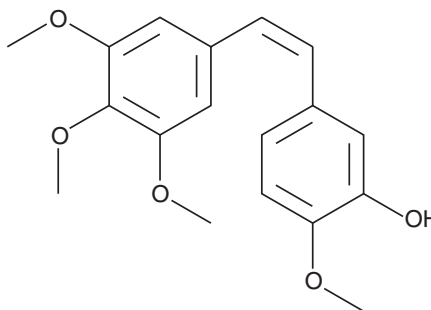
# PRODUCT INFORMATION



## Combrestatin A4

Item No. 10007412

**CAS Registry No.:** 117048-59-6  
**Formal Name:** 2-methoxy-5-[(1Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-phenol  
**Synonyms:** CA4, Combretastatin A4, CRC 87-09  
**MF:** C<sub>18</sub>H<sub>20</sub>O<sub>5</sub>  
**FW:** 316.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 222, 296 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

Combrestatin A4 is supplied as a crystalline solid. A stock solution may be made by dissolving the combrestatin A4 in the solvent of choice, which should be purged with an inert gas. Combrestatin A4 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of combrestatin A4 in ethanol and DMF is approximately 20 mg/ml and approximately 10 mg/ml in DMSO.

Combrestatin A4 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, combrestatin A4 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Combrestatin A4 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

CA4 is a potent inhibitor of tubulin polymerization and displays strong inhibitory activity on tumor cell growth. CA4 was shown to inhibit tumor growth in several cell lines including IMR32 (neuroblastoma), Hs746T (gastric carcinoma), CFPAC-1 (pancreatic carcinoma), and MCF-7 (breast cancer) with IC<sub>50</sub> values of 2.16, 5.20, 3.46, and 18.47 nM, respectively.<sup>1</sup> CA4 inhibits tubulin polymerization with an IC<sub>50</sub> value of 2.2 μM.<sup>2</sup>

### References

1. Sun, L., Vasilevich, N.I., Fuselier, J.A., *et al.* Abilities of 3,4-diarylfuran-2-one analogs of combretastatin A-4 to inhibit both proliferation of tumor cell lines and growth of relevant tumors in nude mice. *Anticancer Res.* **24**(1), 179-186 (2004).
2. Dey, P. Chromatin remodeling, cancer and chemotherapy. *Curr. Med. Chem.* **13**(24), 2909-2919 (2006).

#### 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.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM