

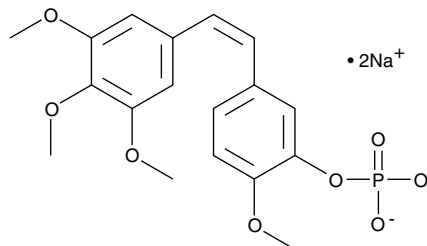
Product Information



Combrestatin A4 3'-O-Phosphate (sodium salt)

Item No. 10007415

CAS Registry No.: 168555-66-6
Formal Name: 2-methoxy-5-[(1Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-phenol, dihydrogen phosphate, disodium salt
Synonyms: CA4P, Combrestatin A4 Disodium Phosphate, Combretastatin A4 3'-O-Phosphate
MF: C₁₈H₁₉O₈P • 2Na
FW: 440.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that combrestatin A4 3'-O-phosphate (CA4P) (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

CA4P (sodium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of CA4P (sodium salt) be prepared by directly dissolving the CA4P (sodium salt) compound in aqueous buffers. The solubility of CA4P (sodium salt) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

CA4 is a potent inhibitor of tubulin polymerization that displays strong inhibitory activity on tumor cell growth. CA4P is a CA4 prodrug that inhibits tumor growth in several cell lines including P-388 (leukemia), SK-N-SH (neuroblast), BXP-3 (pancreas), NCI-H460 (lung), and DU-145 (prostate) with ED₅₀ values of 0.0029, 0.00025, 0.23, 0.00035, and 0.00072 µg/ml, respectively.¹ CA4P specifically targets the tumor vasculature. In a rat model of carcinosarcoma, CA4P delivered intraperitoneally at a dose of 100 mg/kg effectively disrupts tumor blood flow within six hours after administration without significantly affecting normal tissues.²

References

- Pettie, G.R., Rhodes, M.R., Herald, D.L., *et al.* Antineoplastic agents. 445. Synthesis and evaluation of structural modifications of (Z)- and (E)-combretastatin A4. *J. Med. Chem.* **48**, 4087-4099 (2005).
- Tozer, G.M., Prise, V.E., Wilson, J., *et al.* Combretastatin A4 phosphate as a tumor vascular-targeting agent: Early effects in tumors and normal tissues. *Cancer Res.* **59**, 1626-1634 (1999).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10007415

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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