

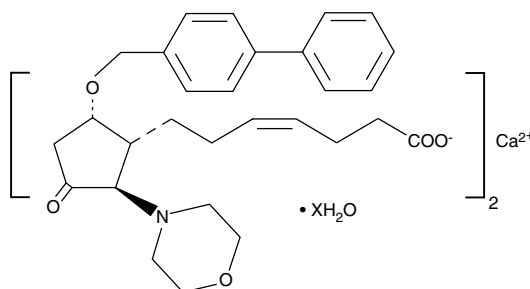
Product Information



AH 23848 (calcium salt, hydrate)

Item No. 19023

Formal Name: 7-[5 α -([1S,1 α -(Z)-biphenyl]-4-ylmethoxy)-2 β -(4-morpholinyl)-3-oxocyclopentyl]-4-heptenoic acid, calcium salt, hydrate
MF: [C₂₉H₃₄NO₅]₂ Ca²⁺ • XH₂O
FW: 1,011.3
Purity: \geq 90%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that AH 23848 (calcium salt, hydrate) be stored as supplied at -20°C. It should be stable for at least two years.

AH 23848 (calcium salt, hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the AH 23848 (calcium salt, hydrate) in an organic solvent purged with an inert gas. AH 23848 (calcium salt, hydrate) is soluble in DMSO. The solubility of AH 23848 (calcium salt, hydrate) in DMSO is approximately 5 mg/ml.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Thromboxane (TXA₂) activates the T prostanoid (TP) receptor. Prostaglandin E₂ (PGE₂) activates four E prostanoid (EP) receptors, EP₁₋₄. AH-23848 is a dual antagonist of TP¹ and EP₄ receptors.² It originally was found to inhibit TXA₂-induced platelet aggregation (IC₅₀ = 0.26 μ M)¹ and the contraction of human bronchial smooth muscle induced by the TP agonist U-46619.³ AH-23848 was subsequently demonstrated to impair PGE₂-mediated relaxation of piglet saphenous vein by antagonizing the PGE₂ receptor EP₄.¹ By inhibiting EP₄, it likewise suppresses serum-induced cAMP generation, cyclin A synthesis, and the proliferation of fibroblasts⁴, as well as reduces metastasis in a mouse model of metastatic breast cancer.⁵

References

1. Brittain, R.T., Boutal, L., Carter, M.C., *et al.* AH23848: A thromboxane receptor-blocking drug that can clarify the pathophysiologic role of thromboxane A₂. *Circulation* **72**, 1208-1218 (1985).
2. Coleman, R.A., Grix, S.P., Head, S.A., *et al.* A novel inhibitory prostanoid receptor in piglet saphenous vein. *Prostaglandins* **47**, 151-168 (1994).
3. Coleman, R.A. and Sheldrick, R.L.G. Prostanoid-induced contraction of human bronchial smooth muscle is mediated by TP-receptors. *Br. J. Pharmacol.* **96**, 688-692 (1989).
4. Sanchez, T. and Moreno, J.J. Role of EP₁ and EP₄ PGE₂ subtype receptors in serum-induced 3T6 fibroblast cycle progression and proliferation. *Am. J. Physiol. Cell Physiol.* **282**, C280-C288 (2002).
5. Ma, X., Kundu, N., Rifat, S., *et al.* Prostaglandin E receptor EP₄ antagonism inhibits breast cancer metastasis. *Cancer Res.* **66**(6), 2923-2927 (2006).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/19023

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

MATERIAL 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 Material Safety Data Sheet, which has been sent *via* email to your institution.

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