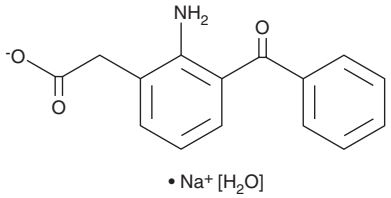
PRODUCT INFORMATION

Amfenac (sodium salt hydrate)

Item No. 30627

CAS Registry No.: 61618-27-7
Formal Name: 2-amino-3-benzoyl-benzeneacetic acid, monosodium salt, monohydrate
MF: $C_{15}H_{12}NO_3 \bullet Na\ [H_2O]$
FW: 295.3
Purity: ≥98%
UV/Vis.: λ_{max}: 238 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

Amfenac (sodium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the amfenac (sodium salt hydrate) in the solvent of choice, which should be purged with an inert gas. Amfenac (sodium salt hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of amfenac (sodium salt hydrate) in ethanol and DMF is approximately 5 mg/ml and approximately 10 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of amfenac (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of amfenac (sodium salt hydrate) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Amfenac is an inhibitor of COX-1 and COX-2 (IC_{50}s = 15.3 and 20.4 nM, respectively, for the recombinant human enzymes) and the active metabolite of the non-steroidal anti-inflammatory drug (NSAID) nepafenac (Item No. 23700).[1] Amfenac (150 nM) reduces the migration of 92.1 uveal melanoma cells, as well as proliferation of the same cells when used in combination with ranibizumab.[2]

References

1. Kida, T., Kozai, S., Takahashi, H., *et al.* Pharmacokinetics and efficacy of topically applied nonsteroidal anti-inflammatory drugs in retinochoroidal tissues in rabbits. *PLoS One* **9(5)**, e96481 (2014).
2. Bravo-Filho, V., Logan, P., Zoroquiain, P., *et al.* Effects of ranibizumab and amfenac on the functional abilities and radiosensitivity of uveal melanoma cells. *Arq. Bras. Oftalmol.* **82(1)**, 38-44 (2019).

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