# PRODUCT INFORMATION



## **Bromfenac** (sodium salt)

Item No. 23763

CAS Registry No.: 91714-93-1

Formal Name: 2-amino-3-(4-bromobenzoyl)-

benzeneacetic acid, monosodium salt

Synonym: AHR 10282B

MF: C<sub>15</sub>H<sub>11</sub>BrNO<sub>3</sub> • Na

FW: 356.2 **Purity:** ≥99% Supplied as: A powder Storage: -20°C Stability: ≥4 years

Na<sup>+</sup>

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## **Laboratory Procedures**

Bromfenac (sodium salt) is supplied as a powder. A stock solution may be made by dissolving the bromfenac (sodium salt) in the solvent of choice. Bromfenac (sodium salt) is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. It is also soluble in water. The solubility of bromfenac (sodium salt) in DMSO and water is approximately 100 mM and approximately 5 mM in ethanol. We do not recommend storing the aqueous solution for more than one day.

#### Description

Bromfenac is an inhibitor of cyclooxygenase 2 (COX-2;  $IC_{50}$  = 6.6 nM) that is selective over COX-1 ( $IC_{50}$  = 210 nM).<sup>1</sup> It inhibits prostaglandin  $E_2$  (PGE<sub>2</sub>; Item No. 14010) production in a rabbit model of LPS-induced eye inflammation. Bromfenac also decreases inflammation following cataract removal in dogs when administered as a 0.9% topical solution on a tapering schedule for 24 weeks. <sup>2</sup> Formulations containing bromfenac have been used in the treatment of postoperative inflammation following cataract surgery.

## References

- 1. Waterbury, L.D., Silliman, D., and Jolas, T. Comparison of cyclooxygenase inhibitory activity and ocular anti-inflammatory effects of ketorolac tromethamine and bromfenac sodium. Curr. Med. Res. Opin. 22(6), 1133-1140 (2006).
- 2. Brookshire, H.L., English, R.V., Nadelstein, B., et al. Efficacy of COX-2 inhibitors in controlling inflammation and capsular opacification after phacoemulsification cataract removal. Vet. Ophthalmol. 18(3), 175-185 (2015).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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