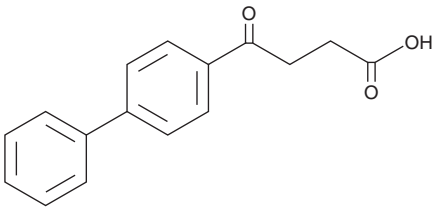
PRODUCT INFORMATION

Fenbufen

Item No. 28851

CAS Registry No.:	36330-85-5
Formal Name:	γ-oxo-[1,1′-biphenyl]-4-butanoic acid
Synonym:	CL 82204
MF:	$C_{16}H_{14}O_3$
FW:	254.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 282 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

Fenbufen is supplied as a crystalline solid. A stock solution may be made by dissolving the fenbufen in the solvent of choice, which should be purged with an inert gas. Fenbufen is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of fenbufen in ethanol is approximately 0.2 mg/ml and is approximately 30 mg/ml in DMSO and DMF.

Fenbufen is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fenbufen should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Fenbufen has a solubility of approximately 0.05 mg/ml in a 1:20 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Fenbufen is a non-steroidal anti-inflammatory drug (NSAID) and a prodrug form of 4-biphenylacetic acid.[1] Fenbufen (125 µg/ml) inhibits collagen-induced, but not arachidonate-induced, platelet aggregation *in vitro*.[2] *In vivo*, fenbufen (8-250 mg/kg) suppresses UV-induced erythema in guinea pigs.[1] It reduces phenylquinone-induced writhing in mice (ED_{50} = 7.7 mg/kg) and brewer's yeast-induced mechano-allodynia in rats (ED_{50} = 29 mg/kg).[2] Fenbufen (28 mg/kg) reduces inflammation in a rat model of adjuvant-induced arthritis. It also reduces yeast-induced fever in rats. Formulations containing fenbufen were previously used in the treatment of osteoarthritis and inflammatory pain.

References

1. Kerwar, S.S. Pharmacologic properties of fenbufen. *Am. J. Med.* **75(4B),** 62-69 (1983).
2. Brodgen, R.N., Heel, R.C., Speight, T.M., *et al.* Fenbufen: A review of its pharmacological properties and therapeutic use in rheumatic diseases and acute pain. *Drugs* **21(1),** 1-22 (1981).

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