

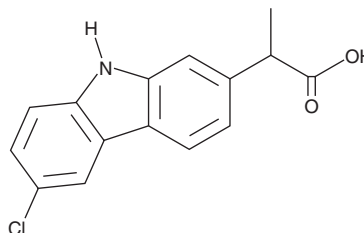
PRODUCT INFORMATION



Carprofen

Item No. 16409

CAS Registry No.: 53716-49-7
Formal Name: 6-chloro- α -methyl-9H-carbazole-2-acetic acid
Synonyms: Carprodyl, NSC 297935
MF: C₁₅H₁₂ClNO₂
FW: 273.7
Purity: \geq 98%
UV/Vis.: λ_{max} : 239, 263, 301, 332, 345 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Carprofen is supplied as a crystalline solid. A stock solution may be made by dissolving the carprofen in the solvent of choice, which should be purged with an inert gas. Carprofen is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of carprofen in ethanol and DMF is approximately 20 mg/ml and approximately 30 mg/ml in DMSO.

Carprofen is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, carprofen should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Carprofen has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Carprofen is a non-steroidal anti-inflammatory drug (NSAID) commonly used in animals to combat pain and inflammation, particularly as associated with osteoarthritis.^{1,2} Like many NSAIDs, carprofen inhibits both cyclooxygenases COX-1 and COX-2 (IC₅₀s = 22.3 and 3.9 μ M, respectively).^{3,4} It also inhibits fatty acid amide hydrolase (IC₅₀ = 74 μ M), blocking the metabolism of the cannabinoid receptor ligand, arachidonoyl ethanolamide (Item No. 90050).^{4,5}

References

1. Malek, S., Sample, S.J., Schwartz, Z., *et al.* Effect of analgesic therapy on clinical outcome measures in a randomized controlled trial using client-owned dogs with hip osteoarthritis. *BMC Vet. Res.* **8**, 185 (2012).
2. Brown, D.C., Boston, R.C., Coyne, J.C., *et al.* Ability of the canine brief pain inventory to detect response to treatment in dogs with osteoarthritis. *J. Am. Vet. Med. Assoc.* **233(8)**, 1278-1283 (2008).
3. Li, J., Lynch, M.P., DeMello, K.L., *et al.* In vitro and in vivo profile of 2-(3-di-fluoromethyl-5-phenylpyrazol-1-yl)-5-methanesulfonylpyridine, a potent, selective, and orally active canine COX-2 inhibitor. *Bioorg. Med. Chem.* **13(5)**, 1805-1809 (2005).
4. Favia, A.D., Habrant, D., Scarpelli, R., *et al.* Identification and characterization of carprofen as a multi-target FAAH/COX inhibitor. *J. Med. Chem.* **55(20)**, 8807-8826 (2012).
5. Bertolacci, L., Romeo, E., Veronesi, M., *et al.* A binding site for nonsteroidal anti-inflammatory drugs in fatty acid amide hydrolase. *J. Am. Chem. Soc.* **135(1)**, 22-25 (2013).

WARNING

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

SAFETY DATA

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/08/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM