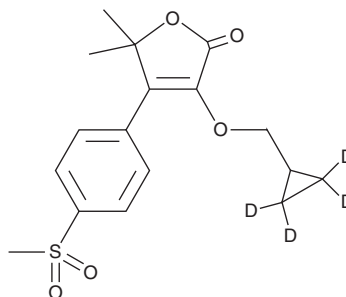


PRODUCT INFORMATION



Firocoxib-d₄ Item No. 46308

CAS Registry No.: 1325700-11-5
Formal Name: 3-(cyclopropyl-2,2,3,3-d₄-methoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-2(5H)-furanone
MF: C₁₇H₁₆D₄O₅S
FW: 340.4
Chemical Purity: ≥95% (Firocoxib)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 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

Firocoxib-d₄ is intended for use as an internal standard for the quantification of firocoxib (Item No. 28286) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Firocoxib-d₄ is supplied as a solid. A stock solution may be made by dissolving the firocoxib-d₄ in the solvent of choice, which should be purged with an inert gas. Firocoxib-d₄ is slightly soluble in chloroform and dichloromethane.

Description

Firocoxib is a selective inhibitor of COX-2 (IC₅₀s = 0.13 and 7.5 μM for COX-2 and COX-1, respectively, in isolated cat blood).¹ It inhibits LPS-induced production of prostaglandin E₂ (PGE₂; Item No. 14010) in isolated dog, horse, and cat whole blood *ex vivo*.¹⁻³ Firocoxib decreases lameness, induces analgesia, and improves range of motion in dogs and horses with osteoarthritis when administered at doses of 5 and 0.1 mg/kg per day, respectively.^{4,5} Formulations containing firocoxib have been used in dogs and horses with osteoarthritis.

References

1. McCann, M.E., Rickes, E.L., Hora, D.F., *et al.* In vitro effects and in vivo efficacy of a novel cyclooxygenase-2 inhibitor in cats with lipopolysaccharide-induced pyrexia. *Am. J. Vet. Res.* **66**(7), 1278-1284 (2005).
2. Goodman, L., Torres, B., Punke, J., *et al.* Effects of firocoxib and tepoxalin on healing in a canine gastric mucosal injury model. *J. Vet. Intern. Med.* **23**(1), 56-62 (2009).
3. Barton, M.H., Paske, E., Norton, N., *et al.* Efficacy of cyclo-oxygenase inhibition by two commercially available firocoxib products in horses. *Equine Vet. J.* **46**(1), 72-75 (2014).
4. Pollmeier, M., Toulemonde, C., Fleishman, C., *et al.* Clinical evaluation of firocoxib and carprofen for the treatment of dogs with osteoarthritis. *Vet. Rec.* **159**(17), 547-551 (2006).
5. Doucet, M.Y., Bertone, A.L., Hendrickson, D., *et al.* Comparison of efficacy and safety of paste formulations of firocoxib and phenylbutazone in horses with naturally occurring osteoarthritis. *J. Am. Vet. Med. Assoc.* **232**(1), 91-97 (2008).

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.

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