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## Product Data Sheet

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Product Name: Piroxicam D3

Cat. No.: GC61193

**Chemical Properties**

Cas. No. 942047-64-5

SMILES O=C(C1=C(O)C2=CC=CC=C2S(N1C([2H])([2H])[2H])(=O)=O)NC3=NC=CC=C3

Formula  $C_{15}H_{10}D_3N_3O_4S$ 

M.Wt 334.36

Solubility DMSO : 50 mg/mL (149.54 mM; Need ultrasonic); H<sub>2</sub>O : 0.1 mg/mL (0.30 mM; Need ultrasonic)

Store  
Storage at -  
20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Piroxicam-d<sub>3</sub> is intended for use as an internal standard for the quantification of piroxicam by GC- or LC-MS. Piroxicam is a COX inhibitor and non-steroidal anti-inflammatory drug (NSAID) with anti-inflammatory and analgesic properties.<sup>1,2</sup> It inhibits production of thromboxane B<sub>2</sub> from arachidonic acid in HEL human erythroleukemic cells (IC<sub>50</sub> = 0.45 μM), which endogenously express COX-1, as well as inhibits LPS-induced formation of prostaglandin F<sub>1α</sub> from arachidonic acid in Mono-Mac-6 cells (IC<sub>50</sub> = 0.77 μM), which endogenously express COX-2.<sup>2</sup> Lornoxicam reduces LPS-induced production of nitric oxide and IL-6 in cell-based assays with IC<sub>50</sub> values of 240 and ~470 μM, respectively. It reduces carrageenan-induced paw edema in rats when administered at doses of 1, 2.5, and 5 mg/kg.<sup>3</sup> Formulations containing piroxicam have been used in the treatment of pain and inflammation associated with osteoarthritis and rheumatoid arthritis.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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1. Pairet, M., van Ryn, J., Schierok, H., et al. Differential inhibition of cyclooxygenases-1 and -2 by meloxicam and its 4'-isomer. *Inflamm. Res.* 47(6)270-276(1998)

2. Berg, J., Fellier, H., Christoph, T., et al. The analgesic NSAID lornoxicam inhibits cyclooxygenase (COX)-1/-2, inducible nitric oxide synthase (iNOS), and the formation of interleukin (IL)-6 in vitro. *Inflamm. Res.* 48(7)369-379(1999)

3. Buritova, J., Honore, P., Chapman, V., et al. Carrageenan oedema and spinal Fos-LI neurones are reduced by piroxicam in the rat. *Neuroreport* 6(10)1385-1388(1995)

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