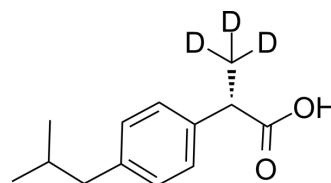


(S)-(+)-Ibuprofen-d₃

Cat. No.:	HY-78131AS	
CAS No.:	1329643-44-8	
Molecular Formula:	C ₁₃ H ₁₅ D ₃ O ₂	
Molecular Weight:	209.3	
Target:	COX	
Pathway:	Immunology/Inflammation	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (477.78 mM; Need ultrasonic)
DMSO : 100 mg/mL (477.78 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		4.7778 mL	23.8892 mL	47.7783 mL
	5 mM		0.9556 mL	4.7778 mL	9.5557 mL
	10 mM		0.4778 mL	2.3889 mL	4.7778 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

(S)-(+)-Ibuprofen-d₃ is a deuterium labeled (S)-(+)-Ibuprofen. (S)-(+)-Ibuprofen is the S(+)-enantiomer of Ibuprofen that inhibits COX-1 and COX-2 activity with IC₅₀s of 2.1 μM and 1.6 μM. (S)-(+)-Ibuprofen has analgesic, antiinflammatory and antipyretic effects[1][2].

IC₅₀ & Target

COX-1	COX-2
2.1 μM (IC ₅₀)	1.6 μM (IC ₅₀)

REFERENCES

[1]. Evans AM, et al. Comparative pharmacology of S(+)-ibuprofen and (RS)-ibuprofen. Clin Rheumatol. 2001 Nov;20 Suppl 1:S9-14.

[2]. Xu HR, et al. The effect of CYP2C19 activity on pharmacokinetics of lansoprazole and its active metabolites in healthy subjects. Pharm Biol. 2010 Aug;48(8):947-52.

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

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