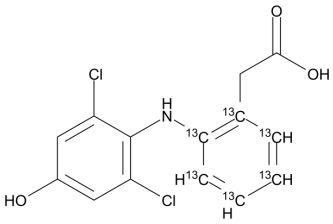
4'-Hydroxy diclofenac-$^{13}C_6$

Cat. No.:	HY-15550S1
CAS No.:	1189656-64-1
Molecular Formula:	$C_8{}^{13}C_6H_{11}Cl_2NO_3$
Molecular Weight:	318.1
Target:	Drug Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	4'-Hydroxy diclofenac-$^{13}C_6$ is the ^{13}C labeled 4'-Hydroxy diclofenac[1]. 4'-Hydroxy diclofenac is an orally active metabolite of Diclofenac (HY-15036) by cytochrome P450 2C9 (CYP2C9). 4'-Hydroxy diclofenac has anti-inflammatory and analgesic properties[2][3].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. J Shimamoto, et al. Lack of Differences in Diclofenac (A Substrate for CYP2C9) Pharmacokinetics in Healthy Volunteers With Respect to the Single CYP2C9*3 Allele. Eur J Clin Pharmacol. 2000 Apr;56(1):65-8.

[3]. Hidetaka Kamimura, et al. Formation of the Accumulative Human Metabolite and Human-Specific Glutathione Conjugate of Diclofenac in TK-NOG Chimeric Mice With Humanized Livers. Drug Metab Dispos. 2015 Mar43(3):309-16.

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