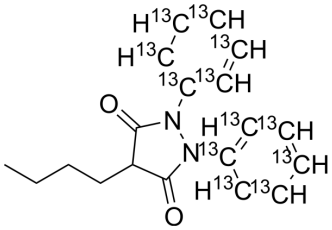
Phenylbutazone-$^{13}C_{12}$

Cat. No.:	HY-B0230S2
CAS No.:	1325559-13-4
Molecular Formula:	$C_7{}^{13}C_{12}H_{20}N_2O_2$
Molecular Weight:	320.29
Target:	COX
Pathway:	Immunology/Inflammation
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	Phenylbutazone-$^{13}C_{12}$ is the $^{13}C_{12}$ labeled Phenylbutazone. Phenylbutazone is an efficient reducing cofactor for the peroxidase activity of prostaglandin H synthase (PHS). Phenylbutazone, a hepatotoxin, is a nonsteroidal anti-inflammatory agent (NSAID). Phenylbutazone induces muscle blind-like protein 1 (MBNL1) expression and has the potential for ankylosing spondylitis research.
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]. Beretta C, et al. COX-1 and COX-2 inhibition in horse blood by phenylbutazone, flunixin, carprofen and meloxicam: an in vitro analysis. Pharmacol Res. 2005 Oct;52(4):302-6.

[2]. G A Reed, et al. Inactivation of prostaglandin H synthase and prostacyclin synthase by phenylbutazone. Requirement for peroxidative metabolism. Mol Pharmacol. 1985 Jan;27(1):109-14.

[3]. Guiying Chen, et al. Phenylbutazone induces expression of MBNL1 and suppresses formation of MBNL1-CUG RNA foci in a mouse model of myotonic dystrophy. Sci Rep. 2016 Apr 29;6:25317.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA