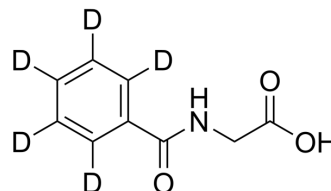


## Hippuric acid-d<sub>5</sub>

<b>Cat. No.:</b>	HY-W016562S
<b>CAS No.:</b>	53518-98-2
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>4</sub> D <sub>5</sub> NO <sub>3</sub>
<b>Molecular Weight:</b>	184.2
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	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)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 250 mg/mL (1357.22 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	5.4289 mL	27.1444 mL	54.2888 mL
		5 mM	1.0858 mL	5.4289 mL	10.8578 mL
		10 mM	0.5429 mL	2.7144 mL	5.4289 mL
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.08 mg/mL (11.29 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (11.29 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.08 mg/mL (11.29 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Hippuric acid-d <sub>5</sub> is the deuterium labeled Hippuric acid. Hippuric Acid (2-Benzamidoacetic acid), an acyl glycine produced by the conjugation of benzoic acid and glycine, is a normal component in urine as a metabolite of aromatic compounds from food.
<b>In Vitro</b>	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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

- [1]. Niwa T, et al. Organic acids and the uremic syndrome: protein metabolite hypothesis in the progression of chronic renal failure. *Semin Nephrol.* 1996 May;16(3):167-82.
- [2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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