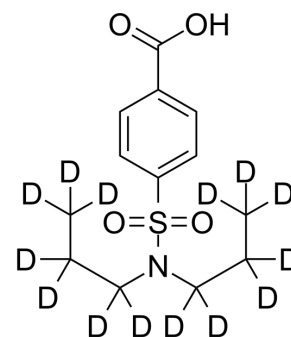


## Probenecid-d14

<b>Cat. No.:</b>	HY-B0545S
<b>CAS No.:</b>	1189657-87-1
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>5</sub> D <sub>14</sub> NO <sub>4</sub> S
<b>Molecular Weight:</b>	299.45
<b>Target:</b>	TRP Channel; Bacterial; HIV
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Probenecid-d14 is the deuterium labeled Probenecid. Probenecid is a potent and selective agonist of transient receptor potential vanilloid 2 (TRPV2) channels. Probenecid also inhibits pannexin 1 channels <sup>[1][2]</sup> .
<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.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Koch SE, et al. Probenecid: novel use as a non-injurious positive inotrope acting via cardiac TRPV2 stimulation. *J Mol Cell Cardiol*. 2012 Jul;53(1):134-44.
- [3]. Bakos E, et al. Interactions of the human multidrug resistance proteins MRP1 and MRP2 with organic anions. *Mol Pharmacol*. 2000 Apr;57(4):760-8.
- [4]. Greene TA, et al. Probenecid inhibits the human bitter taste receptor TAS2R16 and suppresses bitter perception of salicin. *PLoS One*. 2011;6(5):e20123.
- [5]. Silverman W, et al. Probenecid, a gout remedy, inhibits pannexin 1 channels. *Am J Physiol Cell Physiol*. 2008 Sep;295(3):C761-7.

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

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