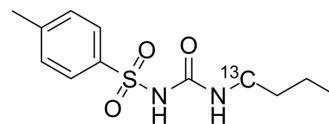


## Tolbutamide-13C

Cat. No.:	HY-B0401S1
Molecular Formula:	C <sub>11</sub> <sup>13</sup> CH <sub>16</sub> N <sub>2</sub> O <sub>3</sub> S
Molecular Weight:	269.32
Target:	Potassium Channel; Autophagy
Pathway:	Membrane Transporter/Ion Channel; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Tolbutamide-13C is the 13C-labeled Tolbutamide. Tolbutamide is a first generation potassium channel blocker, sulfonylurea oral hypoglycemic drug.
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 <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]. Wray, H.L. and A.W. Harris, Adenosine 3', 5'-monophosphate-dependent protein kinase in adipose tissue: inhibition by tolbutamide. *Biochem Biophys Res Commun*, 1973. 53(1): p. 291-4.
- [3]. Sanchez-Alvarez, R., et al., Tolbutamide reduces glioma cell proliferation by increasing connexin43, which promotes the up-regulation of p21 and p27 and subsequent changes in retinoblastoma phosphorylation. *Glia*, 2006. 54(2): p. 125-34.

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

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