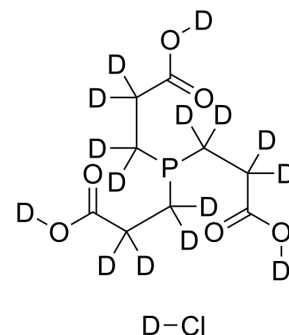


## TCEP-d16 hydrochloride

<b>Cat. No.:</b>	HY-W011500S
<b>CAS No.:</b>	1174025-33-2
<b>Molecular Formula:</b>	C <sub>9</sub> D <sub>16</sub> ClO <sub>6</sub> P
<b>Molecular Weight:</b>	302.75
<b>Target:</b>	Isotope-Labeled Compounds
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	TCEP-d <sub>16</sub> (hydrochloride) is the deuterium labeled TCEP hydrochloride[1]. TCEP hydrochloride (Tris(2-carboxyethyl)phosphine hydrochloride) is a non-thiol reducing agent that is more stable and produces a faster S-S reductive reaction than other chemical reductants. TCEP hydrochloride is a trialkylphosphine, selectively reduces protein disulfides without altering the properties or interacting with thiol-directed agents in the reaction mixture. TCEP hydrochloride is also a commonly used reducing agent in the DNA/AuNP chemistry[2][3][4][5].
<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

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- [6]. Han JC, Han GY. A procedure for quantitative determination of tris(2-carboxyethyl)phosphine, an odorless reducing agent more stable and effective than dithiothreitol. *Anal Biochem*. 1994220(1):5-10.

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

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