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Zuschläge

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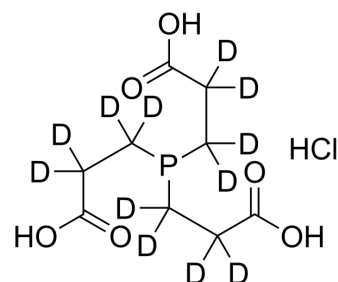
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TCEP-d₁₂ hydrochloride

Cat. No.:	HY-W700621
CAS No.:	1189959-10-1
Molecular Formula:	C ₉ H ₄ D ₁₂ ClO ₆ P
Molecular Weight:	298.72
Target:	Isotope-Labeled Compounds; Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

TCEP-d₁₂ (hydrochloride) (Tris(2-²H-carboxyethyl)phosphine hydrochloride-d₁₂) is deuterium labeled TCEP (hydrochloride). 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^{[1][2][3][4][5]}.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. 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*. 1994;220(1):5-10.
- [3]. Dieguez-Acuña FJ, et al. Inhibition of NF-kappaB-DNA binding by mercuric ion: utility of the non-thiol reductant, tris(2-carboxyethyl)phosphine hydrochloride (TCEP), on detection of impaired NF-kappaB-DNA binding by thiol-directed agents. *Toxicol In Vitro*. 2000 Feb;14(1):7-16.
- [4]. Duchardt F, et al. A cell-penetrating peptide derived from human lactoferrin with conformation-dependent uptake efficiency. *J Biol Chem*. 2009 Dec 25;284(52):36099-108.
- [5]. Sequeira MA, et al. Modulating amyloid fibrillation in a minimalist model peptide by intermolecular disulfide chemical reduction. *Phys Chem Chem Phys*. 2019 Jun 5;21(22):11916-11923.
- [6]. Wu R, et al. Effects of Small Molecules on DNA Adsorption by Gold Nanoparticles and a Case Study of Tris(2-carboxyethyl)phosphine (TCEP). *Langmuir*. 2019 Oct 15;35(41):13461-13468.

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

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