

Product Information

TCEP, Hydrochloride salt

Cat. No.: X24-09-YYX142

Size: 5 g; 10 g

CAS Number: 51805-45-9

PubChem CID: 2734570

Synonym: 51805-45-9; Tris(2-carboxyethyl)phosphine hydrochloride; TCEP

Hydrochloride; TCEP HCl; 3,3',3''-Phosphinetriyltripropanoic acid hydrochloride

This product is for research use only and is not intended for diagnostic use.

Product Information	
Description	TCEP, Hydrochloride salt is a reducing agent that is widely used to break disulfide bonds in proteins. It is essential in protein purification and modification processes, as well as in biochemical assays. It helps maintain proteins in their reduced form and can facilitate the analysis of protein structure and function.
Molecular Weight	250.2
Molecular Formula	C ₉ H ₁₅ O ₆ P
Functional Group 1	Acid
Functional Group 2	Phosphine
Functional Group 3	None
Reactive Group 1	Amine
IUPAC Name	3-[Bis(2-carboxyethyl)phosphanyl]propanoic acid;hydrochloride
InChI	InChI=1S/C9H15O6P.ClH/c10-7(11)1-4-16(5-2-8(12)13)6-3-9(14)15;/h1-6H2,(H,10,11)(H,12,13)(H,14,15);1H
InChI Key	PBVAJRFEEOIAGW-UHFFFAOYSA-N
Canonical SMILES	C(CP(CCC(=O)O)CCC(=O)O)C(=O)O.Cl
Isomeric SMILES	CC(=O)OC[C@@H]1[C@H]([C@@H]([C@@H](C(O1)OC(=O)C)NC(=O)CN=[N+]=[N-])OC(=O)C)OC(=O)C
Form	Solid
Identity	Confirmed by NMR.
Applications	The hydrochloride salt form improves its stability and solubility, facilitating its application in different laboratory settings. Due to its unique characteristics, TCEP hydrochloride salt is a valuable reagent in fields such as biochemistry, molecular biology, and analytical chemistry.

Storage

Store at -20°C.
