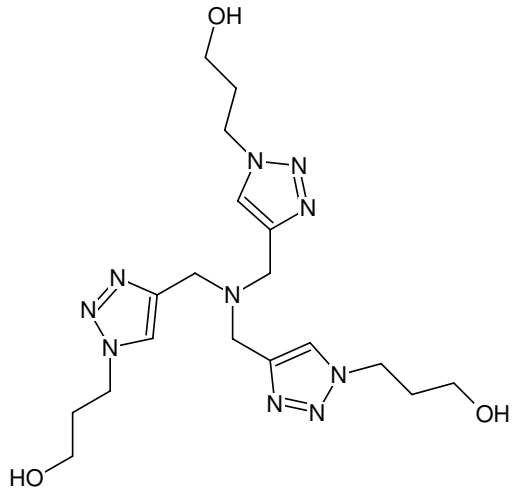
DATA SHEET

Jena Bioscience

THPTA

Tris((1-hydroxy-propyl-1H-1,2,3-triazol-4-yl)methyl)amine

Cat. No.	Amount
CLK-1010-25	25 mg
CLK-1010-100	100 mg
CLK-1010-1G	1 g



Structural formula of THPTA

For research use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at 4 °C

Shelf Life: 12 months after date of delivery

Molecular Formula: $C_{18}H_{30}N_{10}O_3$

Molecular Weight: 434.50 g/mol

Exact Mass: 434.25 g/mol

CAS#: 760952-88-3

Purity: > 95 % (HPLC)

Form: off-white to grey solid

Solubility: water, DMSO, DMF, MeOH

Description:
THPTA is a water-soluble, very effective ligand for Cu(I)-catalyzed Alkyne-Azide click chemistry reactions (CuAAC). It serves a dual purpose: 1) Accelaration of the CuAAC reaction by maintaining the Cu(I) oxidation state of copper sources and 2) Protection of biomolecules from oxidative damage during the labeling reaction[1,2].

THPTA is a superior alternative to water-insoluble TBTA.

A stock solution can be prepared in ddH_2O and subsequently be stored at -20°C. Avoid freeze-thaw cycles.

Presolski *et al.*[1] and Hong *et al.*[2] provide a general protocol for CuAAC reactions that may be used as a starting point for the set up and optimization of individual assays.

Related Products:
Copper (II)-Sulphate ($CuSO_4$), #CLK-MI004
Sodium Ascorbate (Na-Ascorbate), #CLK-MI005
THPTA, #CLK-1010
BTTAA, #CLK-067

Selected References:
[1] Presolski *et al.* (2011) Copper-Catalyzed Azide-Alkyne Click Chemistry for Bioconjugation. *Current Protocols in Chemical Biology* **3**:153.
[2] Hong *et al.* (2011) Analysis and Optimization of Copper-Catalyzed Azide-Alkyne Cycloaddition for Bioconjugation. *Angew. Chem. Int. Ed.* **48**:9879.