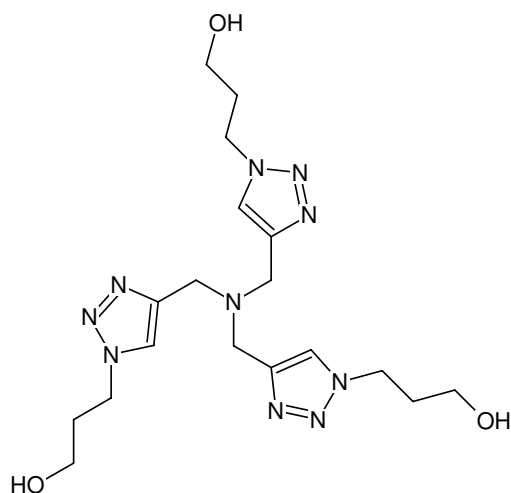


**THPTA**

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:** C₁₈H₃₀N₁₀O₃**Molecular Weight:** 434.50 g/mol**Exact Mass:** 434.25 g/mol**CAS#:** 760952-88-3**Purity:** > 95 % (HPLC)**Form:** solid**Color:** off-white to grey**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) Acceleration 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 ddH₂O 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 (CuSO₄), #CLK-MI004
 Sodium Ascorbate (Na-Ascorbate), #CLK-MI005
 THPTA, #CLK-1010
 BTAA, #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.