

# Technical Data Sheet

## Bis-Tris

for biochemistry

Order number: 1457

Bis-Tris (2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)propane-1,3-diol, also known as Bis-Tris methane or BTM) is a biological buffer with a pKa of 6.5 at 25 °C. Its optimum buffering capacity is therefore in the range between pH 5.8 and pH 7.2. Bis-Tris shares structure with two types of Good's buffers; the Tris-family and the Bis(2-hydroxyethyl)amine family.

It shows very low UV absorption but tends to form complexes with metal ions, especially with Cu<sup>2+</sup> and Pb<sup>2+</sup>. Therefore, the usage of Bis-Tris in solutions containing metal-ions needs to be evaluated.

## Applications

Bis-Tris is used in various areas of biochemistry and molecular biology. One important application is as a component of various buffer systems in the field of electrophoresis (Bis-Tris-SDS-PAGE, Bis-Tris/ACES). Bis-Tris is also a common buffer for anion exchange chromatography. With its properties, Bis-Tris can serve as a substitute for the highly toxic buffer cacodylate.

**Caution:** Bis-Tris interferes with the bicinchoninic acid (BCA) protein assay.

To prepare a stock solution, we recommend dissolving 1 mol/l Bis-Tris in water. Adjust to desired pH with HCl. Aqueous solutions may be sterile filtered but are stable to autoclaving.

## Storage and Stability:

Store Bis-Tris powder at ambient temperatures. Solutions are stable at 2-8°C for many months.

## Related products

- 1112 HEPES buffer grade for biochemistry
- 1125 Tris Xtrapure for biochemistry
- 1165 Tris hydrochloride for biochemistry
- 2151 Bicine for biochemistry
- 1269 Tricine for biochemistry
- 1086 MES monohydrate for biochemistry
- 1111 DTT for biochemistry
- 1123 Protein Ladder (11-245 kDa), prestained for molecular biology

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