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## Product Information

### TRIZMA® base

Cell culture tested, meets EP, USP testing specifications,  
Biotechnology Performance Certified

Product Number **T6066**  
Store at Room Temperature

### Product Description

Molecular Formula:  $C_4H_{11}NO_3$

Molecular Weight: 121.1

CAS Number: 77-86-1

Synonyms: 2-Amino-2-(hydroxymethyl)-1,3-propanediol, tris(hydroxyamino)methane, THAM, Tris base, Trometamol

This product is cell culture tested (1.82 mg/ml) and is designated as Biotechnology Performance Certified. It has been tested for endotoxin levels and analyzed for the absence of nucleases and proteases.

Tris is an established basimetric standard and buffer used in biochemistry and molecular biology.<sup>1</sup> It may be used by itself as a buffer or as a component of mixed buffer formulations.<sup>2</sup> These different buffer formulations include:

- Tris-EDTA (TE) buffer
- Tris magnesium buffer
- Tris-acetate-EDTA (TAE) buffer
- Tris-borate-EDTA (TBE) buffer
- Tris-buffered saline (TBS)
- Tris-buffered saline with dextrose (TBS-D)
- Tris-glycine buffer
- Tris-phosphate EDTA buffer
- Tris-SDS buffer
- Tris-sucrose
- Tris-Tricine-SDS buffer

Tris salts are used in protein crystallization at various pH values (Product Nos. 82009, 70437, 75403, 86684, 73513).<sup>3,4,5,6</sup> The use of low-ionic strength Tris buffers in the formation of intermediate filaments of lamin from *Caenorhabditis elegans* has been described.<sup>7</sup> Tris has also been utilized in the extraction and enrichment of membrane proteins for separation by two-dimensional polyacrylamide gel electrophoresis.<sup>8,9</sup>

Tris has been utilized in studies of double stranded complexes of peptide nucleic acids (PNA) and their complementary DNA sequences, by use of anion exchange HPLC.<sup>10</sup> The use of Tris in capillary electrochromatography and UV analysis of tocopherols and tocotrienols has been reported.<sup>11</sup>

### Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

### Preparation Instructions

This product is soluble in water (666 mg/ml), yielding a clear, colorless solution.

### Storage/Stability

TRIZMA solutions can be autoclaved. Tris has a significant temperature coefficient:

- From 5 °C to 25 °C, the pH decreases an average of 0.03 pH units per °C.
- From 25 °C to 37 °C, the pH decreases an average of 0.025 pH units per °C.

When preparing Tris solutions at a given pH and temperature, it is necessary to choose the proper mixture to give the desired final pH at the desired temperature.

### References

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