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DATASHEET

Tris base

Product overview

Name	Tris base
Cat No	HB5504
Biological description	Widely used component of buffer solutions in molecular biology such as TBS (Tris-buffered saline), TAE (Tris acetate / EDTA) and TBE (Tris borate / EDTA) buffers. Due to having a pKa of ≈ 8.1 at 25 °C it effectively buffers solutions from pH 7 to 9, a range suitable for the majority of biological processes. Highly water soluble.
Alternative names	Tris, tromethamine, THAM, Trometamol, Tris(hydroxymethyl)aminomethane
Biological action	Buffer
Purity	>99%
Description	Widely used buffer component in molecular biology

Biological Data

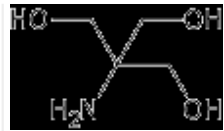
Application notes	Common buffer recipes: • TBS: 20mM Tris, 150mM NaCl, pH7.4 • TAE: 40mM Tris, 20mM acetic acid, 1mM EDTA, pH8.5 • TBE: 89mM Tris, 89mM boric acid, 2mM EDTA, pH8.3
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Solubility & Handling

Storage instructions	RT
Solubility overview	Soluble in dH ₂ O to $\approx 50\text{g}/100\text{ml}$.
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions Important	Stable for ambient temperature shipping. Follow storage instructions on receipt. This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	2-amino-2-(hydroxymethyl)propane-1,3-diol
Molecular Weight	121.14
Chemical structure	

Chemical name	2-amino-2-(hydroxymethyl)propane-1,3-diol
	
Molecular Formula	C ₄ H ₁₁ NO ₃
CAS Number	77-86-1
PubChem identifier	6503
SMILES	C(C(CO)(CO)N)O
InChi	InChI=1S/C4H11NO3/c5-4(1-6,2-7)3-8/h6-8H,1-3,5H2
InChiKey	LENZDBCJOHFCAS-UHFFFAOYSA-N
MDL number	MFCD00004679
Appearance	White crystalline solid

References

Tris-base buffer: a promising new inhibitor for cancer progression and metastasis

Ibrahim-Hashim A, Abrahams D, Enriquez-Navas PM, Luddy K, Gatenby RA, Gillies RJ. (2017) Cancer Med

PubMedID [28556628](#)

Tris-HCl: a standard buffer for use in the physiologic pH range.

Durst RA, Staples BR (1972) Clin Chem

PubMedID [5020814](#)
