

Ethylenediaminetetraacetic Acid (EDTA) Solutions, pH 8.0

DNase, RNase and protease-none detected

Catalog Number **ML 005-01 (0.5 M)**

ML 005-02 (1.0 M)

Storage Temperature 15~30°C

Product Description

Ethylenediaminetetraacetic acid (EDTA) combines with cations such as Mg^{2+} or Ca^{2+} to form a complex compound. EDTA has 4 negative charges for each molecule, and reacts with the diatomic positive charges of two cations. These cations generally assist enzymes (DNase) in hydrolyzing DNA. By adding EDTA to solutions that contain nucleic acid (TE, TAE, TBE, TPE buffer etc.) potential DNase activity can be deterred. In molecular biology studies, cations are commonly used to deter enzyme reactions by preventing the activation of assistance factors such as complementary enzymes. Cations also reinforce the cell wall of *E. coli* and many other microbes, and can be removed by adding EDTA.

ML 005-01 contains 186.1 g/L EDTA·2Na·2H₂O and 20 g/L NaOH in Ultra Pure Water (**ML019-02**).

ML 005-02 contains 372.2 g/L EDTA·2Na·2H₂O and 40 g/L NaOH in Ultra Pure Water (**ML019-02**).

Storage/Stability

The concentrated EDTA solutions should be stored at 15~30°C. Deterioration of the solution may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

Precautions

For *In Vitro* Use Only

Components	g/L	
	ML 005-01	ML 005-02
EDTA·2Na·2H ₂ O	186.1	372.2
NaOH	20	40

Product Profile	
Appearance	Clear colorless solution
Molecular Formula	C ₁₀ H ₁₄ N ₂ O ₈ Na ₂ ·2H ₂ O
Molecular Weight	372.2
DNase, RNase, and Proteinase	None Detected
Sterility	Sterilized by autoclaving (121°C, 20 min) and 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.