**Preparation of 1x DNase buffer instruction**

* Firstly, prepare 100 mL of DNase buffer 10 X. To a glass bottle, add:
* 10 mL 1M Tris-HCL pH 7.5 (autoclaved or filtered)

**2)** Add 157.6g of Tris-HCL in 100 mL of ddH2O and wait for dissolve. Slowly complete until final volume of 200 mL while adjust the pH for 7.5 (This solution will be 1M Tris-HCL pH 7.5)

**3)** Autoclave or filter the solution before preparing the 10x DNase buffer (100 mM Tris-HCL pH 7.5, 25 mM MgCl2, 5 mM CaCl2).

**1)** To prepare a stock of 200 mL 1M Tris-HCL pH 7.5, first calculate the molarity. For the current product number 93363-50G:

g = moles x molecular weight (MW)

g = 1 mol x 157.60 (g/mol)

g = 157.60

* 2.5 mL 1M MgCl2 (autoclaved or filtered) (Bioultra, 63069-100ML)
* 0.5 mL 1M CaCl2 (autoclaved or filtered) (Bioultra, 21115-100ML)
* 87 mL ddH2O
* Autoclave and filter.
* Dilute from DNase buffer 10 X to DNase buffer 1 X.
* To have a final volume of 100 mL DNase buffer 1 X, for example:

C1 x C2 = V1 x V2

10X x 1X = V1 mL x 100 mL

V1 = 10 mL

Interpretation: Add 10 mL of DNase buffer 10 X buffer in 90 mL of ddH2O to have a final dilution of DNase buffer 1 X.

**Supplementary Figure 1.** Protocol to prepare 1x DNase buffer.