

DNase I Stock Solution for Protein Purification

Storage Buffer and 10X Reaction Buffer

DNase I Storage Buffer (10 units/ μ l)

- To 100 μ l of 100mM Tris-HCl (pH 7.5) ([GoldBio Catalog # T-400](#)), add:
 - 1 μ l 1M MgCl₂ solution (mw. 95.21 g/mol)
 - 399 μ l dH₂O.
- Add 10,000 Kunitz units DNase I ([~5 mg of D-301](#), [~20 mg of D-300](#), or [~33.3 mg of D-303](#)) and mix well.
- Add 500 μ l glycerol and mix.
- Store DNase I Stock Solution at -20°C. Avoid repeated freeze/thaw.

Final Concentration:

10mM Tris-HCl

1mM MgCl₂

10X DNase I Reaction Buffer (optional)

- To 974 μ l of 100mM Tris-HCl (pH 7.5) ([GoldBio Catalog # T-400](#)), add:
 - 1 μ l of 1M CaCl₂ solution (mw. 110.98 g/mol)
 - 25 μ l 1M MgCl₂ solution (mw. 95.21 g/mol)
- Store at room temperature.

1X Final Concentration:

9.74mM Tris-HCl

0.1mM CaCl₂

2.5mM MgCl₂

10X DNase I Stop Buffer (optional)

- Add 1.86 g of EDTA disodium ([GoldBio Catalog # E-210](#)) to a 15 ml tube.
- Add 10 ml dH₂O.

Unit Definition: One Kunitz Unit will produce an A₂₆₀ of 0.001 per minute at pH 5.0 at 25°C using DNA, type I or III as the substrate