Homemade Buffer Compositions

- Miniprep Buffers
  - Re-suspension Buffer (equivalent of Qiagen Buffer P1)
    - Tris·HCl – 50 mM
    - EDTA – 10 mM
    - RNase A – 100 μg/mL
    - HCl – final pH 8

    (**Note:** Store RNase A @ -20° C, aliquot buffer and add at time of use, do not autoclave)

    (**Note:** Do not autoclave RNase A)
  - Lysis Buffer (equivalent of Qiagen Buffer P2)
    - NaOH – 200 mM
    - SDS – 1% (w/v)

    (**Note:** Do not autoclave SDS, use sterile filter)
  - Neutralization Buffer (equivalent of Qiagen Buffer N3)
    - Gu·HCl – 4.2 M
    - Potassium Acetate – 0.9 M
    - HCl – final pH 4.8
  - Column Wash/Binding Buffer (equivalent of Qiagen Buffer PB)
    - Gu·HCl – 5.0 M
    - Isopropanol – 30 % (v/v)
  - Column Wash Buffer (equivalent of Qiagen Buffer PE)
    - Tris·HCl – 10 mM
    - Ethanol – 80% (v/v)
    - HCl – final pH 7.5

- Mini-column Recycling Buffer
  - Equilibrium Buffer (equivalent of Qiagen Buffer QBT)
    - NaCl – 750 mM
    - MOPS – 50 mM
    - Isopropanol – 15% (v/v)
    - Triton X-100 – 0.15% (v/v)

    (**Note:** Do not autoclave MOPS, use sterile filter)

- Protein Purification Buffer
  - NID Extraction Buffer
    - EDTA – 20-50 mM
    - Tris·HCl – 50 mM
    - NH_4Cl – 0.75 M
    - Triton X-100 – 0.5% (v/v)
    - Sucrose – 5.0% (w/v)
    - Lysozyme – 100 μg/mL
    - RNase A – 25 μg/mL
    - HCl – final pH 8

    (**Note:** Store RNase A & Lysozyme @ -20° C, aliquot buffer and add at time of use, do not autoclave)