Solutions used in the isolation of mononucleosomai DNA from Haloferax volcanii

**MNase Buffer:**
- 10 mM Tris (pH 8)
- 1 mM CaCl₂

**MNase:**
- add 850 microliters of dH₂O to vial

**RNAse A (DNase free):**
- Dissolve contents of tube in .01 M Na Acetate, pH 5.2
- Heat at 100 degrees C for 15 minutes.
- Allow to cool slowly to room temperature.
- Adjust pH with .1 volumes of 1M Tris Hcl, pH 7.5
- Aliquot and freeze.

**10% SDS**
- 10% weight: volume Sodium dodecyl sulfate in dH₂0

**.5 M EDTA**

**Stop Buffer**
- Mix together equal volumes of 10% SDS and .5 M EDTA

**5 M NaCl**

**Ethidium Bromide**
- 10 mg/ml

(Caution: ethidium bromide is highly mutagenic and must be handled with very carefully. Be sure to wear gloves and change them when you are done handling this reagent.)

**Tris / Glycine 5X Stock Buffer**
- 288 g glycine
- 60 g Tris
dH₂O to 1 liter
Note: this buffer will be diluted to 1/2 X concentration as needed as follows:

100 mls 5X Tris/Glycine Stock Buffer
1900 mls dH2O

4% Agarose gel

Add 4g Nuseive GTG Agarose per 100 mls 1/2 X Tris / Glycine Running Buffer (use about 80 mls per gel)

example: for 3 gels, dissolve 9.6 g agarose in 240 mls of 1/2 X Running Buffer. Microwave 3-4 minutes till clear. Pour while still quite hot. **Do not add Ethidium Bromide.**

3 M Na Acetate, pH 5.2

7.5 M Ammonium Acetate (when doing this procedure using yeast instead of haloferax)

70% Ethanol

Chloroform / Isoamyl alcohol mixture

96 mls chloroform
4 mls isoamyl alcohol

(need a 24 : 1 ratio)

Note: These are toxic so handle with care in the fume hood and store there.

Phenol / Chloroform / Isoamyl alcohol mixture

Add 25 mls Phenol to 25 mls Chlorform/Isoamyl Alcohol mixture in the fume hood. Dispose of pipettes in Hazardous waste trash.

Note that phenol is also very toxic and please use this mixture with care.