Preparation of Buffer

1.0 mol/L Tris • HCl（pH6.8）

Tris		30.28g
Ultrapure water		200 mL

Dissolve the Tris in the ultrapure water, and then add concentrated HCl to adjust the pH to be 6.8. Add ultrapure water until the total volume is 250 mL. Store the prepared buffer at room temperature after high temperature sterilization.

1.5 mol/L Tris • HCl（pH8.8）

Tris	45.43 g
Ultrapure water	200 mL

Dissolve the Tris in the ultrapure water, and then add concentrated HCl to adjust the pH to be 8.8. Add ultrapure water until the total volume is 250mL. Store the prepared buffer at room temperature after high temperature sterilization.

10% SDS

Dissolve 10g SDS in 100 mL of distilled water by incubating in 50℃ water bath, and store the prepared buffer at room temperature. If there is any precipitate during the long time storage, the buffer can still be used after dissolution by water bath.

10% Ammonium persulfate（APS）

Dissolve 0.1g ammonium persulfate in 1.0 mL of ultrapure water, and then store the prepared buffer at 4℃ for 1 week (-20℃ for long time storage).

30% Acrylamide

Acrylamide	29 g
N,N'-Methylenebisacrylamide	1 g

Dissolve the acrylamide and N,N'-Methylenebisacrylamide in 50 mL water. Then add distilled water until the total volume is 100 mL. Store the prepared buffer at room temperature in brown bottle.

10× PBS (2L)

NaCl	160 g
KCl	4 g
$Na_2HPO_4 \cdot 12H_2O$	22.9 g
KH_2PO_4	4 g
Distilled water	1 L

Mix all of the substances above homogeneously and then add NaOH to adjust the pH to be 7.4. Add distilled water until the total volume is 2L. Store the buffer at room temperature.

Reduced 5×SDS (Loading Buffer)

Reagent	Amount
0.5 mol/L Tris•HCl (pH6.8)	2.5 mL
Dithiothreitol (DTT)	0.39 g
SDS	0.5 g
Bromophenol Blue	0.025 g
Glycerin	2.5 mL

Mix all of the substances above homogeneously, and then aliquot the buffer and respectively. Store them in 1.5 mL centrifugal tubes at 4℃ for weeks(-20℃ for long time storage).

Electrophoretic Buffer

Reagent	Amount
Tris	3.03g
Glycine	18.77g
SDS	1g

Add distilled water to dissolve the substances above until the total volume is 1000 mL. Store the buffer at room temperature. The prepared solution can be repeatedly used for 3 to 5 times.

Transfer Buffer

1×Transfer Buffer:

Reagent	Amount
Glycine	11.25 g
Tris	2.375 g
SDS	0.375 g
Methanol	200 mL

Add distilled water to dissolve the substances above until the total volume is 1000 mL. Store the buffer at 4℃ . The prepared solution can be repeatedly used for 3 to 5 times.

TBS Buffer

Reagent	Amount
NaCl	8.5 g
Tris	1.2 g
SDS	0.375 g
Methanol	200 mL

Add distilled water to dissolve the NaCl and Tris, SDS, and then add glacial acetic acid to adjust the pH to be 7.2. Add 200mL Methanol to the buffer then add distilled water until the total volume is 1000mL. Store the buffer at room temperature.

Eluant TBST Solution

Mix 1000 mL of TBS solution with 1 mL of Tween-20, then homogeneously mix the buffer. Prepare the buffer before when needed.

Blocking Buffer（TBST buffer with 5% skimmed milk）

Reagent	Amount
Skimmed milk	5 g
TBST	100 mL

Dissolve the skimmed milk in TBST. The prepared TBST buffer can be used for only one time.

RIPA Lysis Buffer, Medium

1×Transfer Buffer：

Reagent	Amount	Final concentration
Tris-base	0.6055 g	50 mM
NaCl	0.8766 g	150 mM
EDTA · 2Na.2H_2O	0.037224 g	1 mM
SDS	0.1 g	0.1%
Sodium deoxycholate	0.5 g	0.5%
NP-40	1 mL	1%

Dissolve Tris-base, NaCl, EDTA and SDS with distilled water, and then add concentrated HCl to adjust the pH to be 7.4. Add 5 mL of the sodium deoxycholate solution of 10% that is prepared separately in advance (the working concentration of sodium deoxycholate solution is 0.5%), and add 1 mL of NP-40. Mix them and add distilled water until the total volume is 100 mL. Aliquot the buffer and store at -20℃ .