Protocol for the Dnd phenotype determination with activated TAE buffer

1. Prepare 1×TAE fresh buffer in a clean tank (adjust the volume of buffer according to the tank used) and run the buffer without gel at 3V/cm for 30 minutes to activate the buffer.

2. During duration of activation, add 500ng or more DNA (5-10μl) of sample to be tested in the 1.5ml eppendorf tubes.

3. After 30minutes, keep running the buffer and take out 500μl activated buffer very close to the Platinum at the side of Anode.

4. Mix the DNA completely in each tube and place them in the 37℃ water bath for 1 hour.

5. Add 500μl isopronol, 50μl 3M acetate ammonium (natural pH) and then centrifuge at 12000rpm for 7 minutes to precipitate the treated DNA.

6. Discard the supernatant, add 1000μl 70% ethanol to wash the precipitated DNA for twice.

7. Dry down the DNA and then add 10μl ddH_2O to dissolve the DNA at least for 2 hrs.

8. Run the treated DNA in the 0.8% gel to detect the Dnd phenotype.

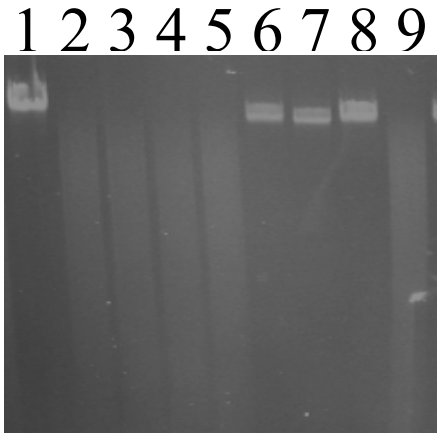

Figure 1. DNA degradation (Dnd) phenotype. Lane 1, 6, 7 and 8 display the intact DNA after treatment with the activated TAE buffer, whereas Lane 2, 3, 4, 5 and 9 show the DNA degradation (Dnd) phenotype after treatment.