PROTOCOL- **Isolation of gDNA from Tail biopsies**

Generally, genomic DNA from mouse tail biopsies is isolated in the Transgenic/Knockout Core using the Promega Wizard SV Genomic DNA Purification system (A2360)

Method:

1. Remove tail biopsies from frozen storage (each in an eppendorf tube).
2. Prepare Digestion Solution (for each biopsy use: 200 uL Nuclei Lysis solution, 50 uL 0.5M EDTA ph 8.0, 20 uL proteinase K @ 20 mg/mL and 5 uL RNase A solution). Add 275 uL of Digestion Solution to each biopsy and incubate overnight (up to 18 hours) at 55°C.
3. Digests can be frozen at this point and processed later (store at -70°C). To process frozen digests bring them to 55°C before proceeding with the purification.
4. To process immediately add 250 uL of Wizard SV Lysis Buffer, vortex to mix and transfer the entire digest to a Wizard SV minicolumn assembly.
5. Spin the assembly at 13,000xg for 3 minutes (1 minute more if any digest remains in the filter).
6. Discard liquid from the collection tube.
7. Add 650 uL Wizard SV Wash Solution.
8. Spin at 13,000xg for 1 minute.
9. Discard the wash solution from the collection tube.
10. Repeat wash step 3 times for a total of 4 washes.
11. Spin the empty column with an empty collection tube for 2 minutes at 13,000xg to dry the binding matrix.
12. Place the dry mini-column in a clean collection tube and add 150 uL of nuclease-free water pre-heated to 65°C. Incubate for 2 minutes at room temperature.
13. Collect gDNA by spinning the assembly for 1 minute at 13,000xg.
14. Store the gDNA at -20°C or -80°C.