

## Cardiotoxin injection

This is a protocol for inducing skeletal muscle injury, which has been widely using for studying satellite cell proliferation, differentiation *in vivo* (Yan et al. JBC 2003, 278:8826).

Procedure:

1. **Obtain mice** from breeding colony.
2. Restrain the hindlimb and **shave with a clipper** to remove the hair from the front portion of the hindlimb.
3. **Disinfect area** with betadine twice and 70% ethanol three times.
4. **Inject** 0.1 ml of 10  $\mu$ M cardiotoxin intramuscularly into the belly of tibialis anterior muscle(s).
5. **Inject BrdU** (Sigma, B5002) (500 mg/kg in normal saline) i.p. 6 hours before harvesting. Please see BrdU injection protocol.
6. **Euthanize mice and harvest** tibialis anterior muscles at day 1, 2, 3, 5, 10 and 14 for indirect immunofluorescence to quantify the number of proliferative cells and determine the identity of the cells