



Date: 22.07.2016

Subcutaneous injection of mice
s.c. Injection

LTK-TRT-11-A-EN
Version: A

This SOP replaces: Date: None
Version: None

Reason for Change: None

Related SOPs: SOP-LTK-TRT-8-EN Scoring Post-Application
SOP-LTK-TRT-13-EN Isoflurane anesthesia

Indication of Use: Bringing cells or substances in solution under the skin of mice

Aim of SOP: This protocol describes how cells or solutions are injected subcutaneously (s.c.) through the skin of mice, usually for slow and sustained release of the substance into the vascular system.

Distribution:

1. Original: Thorsten Buch
2. Copy: Animal facilities
3. Intranet

Attachments:

Generated
at: 26.11.14

Checked and approved
at: 8.12.2014

by: Thorsten Buch

by: Philippe Bugnon

Responsible Persons: Researcher with Modul 1 after registration on animal license

Method: Injection



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Principle of Method: -

Units and Formulas: None

Material to be used:

-

Min/Max amount:

Maximum injection volume is 10 µl/g mouse = 200 µl/20 g.

Material acquisition: -

Calibration:-

Storage of Material: -

Machine:

1. Laminar flow/changing station
2. optional: Isoflurane setup

Material:

1. 1 ml syringe/insulin syringe
2. 25-27 gauge needle

Reagents:

optional: isoflurane



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Safety:

Rules for the respective animal room have to be followed

Method Description:

1. Place cage with animal and second cage (if more than one mouse is injected) under laminar flow/changing station
2. Immobilize the mouse on the cage grid with one hand, allowing it to grasp the grid with its paws.
Optional: anesthetize the mouse using isoflurane (e.g. small hands)
3. While restraining the mouse with the hand (by pressing it down moderately) use the fore-finger and thumb to lift the skin on the back of the mouse.
4. Inject into the lifted skin but well below your fingers holding the skin and parallel to the body of the mouse to avoid damage to underlying structures.
5. Aspirate to make sure the needle hasn't entered a blood vessel.
6. Inject the liquid slowly.
7. Withdraw the needle and press the skin, and check that no liquid is running out of the skin.
8. Feel the bleb on the skin resulting from the injected liquid.
9. Put the mouse back into the cage.

Controls:

-

Factors influencing outcome:

-

Criteria for approving outcome:

all liquid injected without complications

Analysis:

-

Documentation:

The experiment has to be recorded as required by the respective animal permit. Also an entry in the lab book has to be made. The SOP Scoring post-application has to be followed.

Problem management:

In case of serious adverse events the animal has to be euthanized. The SOP Scoring post-application has to be followed. Contact supervisor, lab head or vet.



**University of
Zurich**^{UZH}

Institute of Laboratory
Animal Sciences

Standard Operating Procedure

SOP

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Sample storage:

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Method validation:

-

Literatur:

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