

 University of Zurich ^{UZH} Institute of Laboratory Animal Sciences	Standard Operating Procedure SOP	Page 1 of 3
Date: 19.02.2021	Subcutaneous injection of mice s.c. Injection	LTK-TRT-11-EN Version: D
This SOP replaces: Date: 22.01.2021 Version: C		
Reason for Change: Commission comments		
Next Revision 18.02.2024		
Related SOPs: SOP-LTK-RES-58-EN Adoptive Transfer EAE SOP-LTK-RES-26-EN EAE induction SOP-LTK-TRT-50-EN Post-surgery analgesia after stereotactic injections on EAE animals		
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: 18.02.2021	Checked and approved at: 19.02.2021	
by: Thorsten Buch	by: Dr. Vanhecke	

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

Method: Injection

Min/Max amount:
Maximum injection volume is 10 µl/g mouse = 200 µl/20 g.

File: SOP-LTK-TRT-11-D-EN sc injection.docx

Institute of Laboratory Animal Sciences	Standard Operating Procedure SOP	Page 2 of 3
Date: 19.02.2021	Subcutaneous injection of mice s.c. Injection	LTK-TRT-11-EN Version: D
Machine: 1. Laminar flow/changing station		

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

Safety: Rules for the respective animal room have to be followed
--

Method Description: <ol style="list-style-type: none"> 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. 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. Injection can be performed on the back of the mouse above the shoulder blades (scapular injection) or on the flank of the mice. 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. Inject the liquid slowly. 6. Withdraw the needle and check that no liquid is running out of the skin. 7. Depending on the injected volume a bleb on the skin can be seen or felt. 8. Place the mouse back into the cage.

Criteria for approving outcome: All liquid injected without complications

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.
--

File: SOP-LTK-TRT-11-D-EN sc injection.docx

Institute of Laboratory Animal Sciences	Standard Operating Procedure SOP	Page 3 of 3
Date: 19.02.2021	Subcutaneous injection of mice s.c. Injection	LTK-TRT-11-EN Version: D
Problem management: In case liquid has run out from the injection site, animals have to be taken out of experiment. In case of unforeseen events, contact supervisor, lab head or vet.		