University of Zurich[UZH] Institute of Laboratory Animal Sciences	**Standard Operating Procedure** **SOP**	**Page 1 of 2**
Date: 27.07.2022	**Intravenous injection of mice** **i.v. Injection**	**LTK-TRT-7-EN** **Version: C**

This SOP replaces:	Date: 21.08.19 Version: B
Reason for Change:	Superfluous boxes were removed
Related SOPs:	
Indication of Use:	Bringing cells or substances in solution into the blood of mice
Aim of SOP:	This protocol describes how cells or solutions are injected intravenously (i.v.) through the tail vein of mice

Distribution:

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

Attachments:

Generated at: 26.07.22	Checked and approved at: 27.07.22
by: Vasileia Kalaitzaki	by: Thorsten Buch

Responsible Persons: Researcher with Module 1 after registration on animal license including EAE protocol

Min/Max amount:

Maximum injection volume is 5 µl/g mouse = 100 µl/20 g = 5 ml/kg
Exemptions for experimental reason must be approved in respective animal permits

Reference: https://www.gv-solas.de/wp-content/uploads/2017/03/2017_substance_administration.pdf

Machine:
Laminar flow/changing station

Material:
1. 1 ml syringe/insulin syringe
2. 26-30 gauge needle
3. restrainer
4. water in beaker at max 42 °C

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

Method Description:
1. Warm the tail of the mouse in max 42 °C warm water.
2. Restrain the mouse in the physical restrainer device. If mouse cannot be restrained in the device, anaesthetize the mouse.
3. Rotate the tail slightly to visualize the vein.
4. Firmly hold the tail between the thumb and forefinger of your hand that does not hold the syringe. Hold the tail above (proximal to) the injection site.
5. Insert needle (26-30 gauge) into the vein at a slight angle. DO NOT aspirate!
6. Inject slowly, watching for clearing of the lumen (to ensure you are injecting into the vein). You should see the vein become clear as the fluid replaces the blood.
7. Withdraw needle and apply slight pressure on site of injection.
8. Return the animal to the cage after visual check of the injection site

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.

Problem management:
In case of emergency contact supervisor, lab head or vet.