University of Zurich[UZH] Institute of Laboratory Animal Sciences	**Standard Operating Procedure** **SOP**	**Page 1 of 2**
Date: 03.08.2018	**Intraperitoneal injection of mice** **i.p. Injection**	**LTK-TRT-10-EN** **Version: C**

This SOP replaces:	Date: 26.11.14 Version: B
Reason for Change:	Superfluous boxes were removed Positive aspirate recommendations made
Related SOPs:	SOP-LTK-RES-58-EN Adoptive Transfer EAE SOP-LTK-RES-26-EN EAE induction
Indication of Use:	Bringing cells or substances in solution into the peritoneal cavity of mice
Aim of SOP:	This protocol describes how cells or solutions are injected intraperitoneally (i.p.) through the abdomen of mice
Distribution:	1. Original: Thorsten Buch 2. Copy: Animal facilities 3. Intranet
Attachments:	

Generated at: 02.08.2018	Checked and approved at: 03.08.2018
by: Thorsten Buch	by: Dr. Prajwal

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.

Machine:
Laminar flow/changing station

Material:

1. 1 ml syringe/insulin syringe
2. 26-27 gauge needle, 12 mm length

Safety:

Rules for the respective animal room have to be followed

Method Description:

This method allows the introduction of liquids directly and quickly into the vascular system of the mouse. The recommended needle size for i.p. injections in the mouse is 26-28 gauge. Maximum injection volume is 10 µl/g mouse = 200 µl/20 g.

1. Place cage with animal and second cage (if more than one mouse is injected) under laminar flow/changing station
2. Restrain the mouse very well with one hand, to prevent injury to the mouse while injecting. If possible, also restrain one hind limb.
3. Turn the mouse so the ventral side is facing up. Now tilt the mouse so that the head is facing down and the abdomen is nearest to you.
4. With the other hand, insert the injection needle at the lower right abdomen, at 30 degrees to the skin, and along the imaginary diagonal line connecting the right hind limb and the left forelimb. Insert about half a centimeter into the abdomen.
5. Aspirate a little to check no blood or greenish liquid appears, which would be a sign of needle being inserted into blood vessel or intestines. If any aspirate is seen, stop. (blood – observe 5 min, inject contralateral side, any other - euthanize)
6. If there is no aspirate, proceed with injecting the liquid.
7. Withdraw the needle and return the mouse to the second cage. Observe for any signs of distress or trauma.

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 serious adverse events the animal has be euthanized. Contact supervisor, lab head or vet.