

METADATA

R603



Experiment

• Animal	
○ Case number / original protocol number	R603 / Iza 23
○ Species / strain / gender / birth date / weight	Rat /Sprague Dawley/ Male /- / - /
○ Source (provider)	Scanbur BK AS
○ Microbiological status (e.g. FELASA)	conventional animal, free from zoonoses
○ Behavioral data	NA
○ Genetic characteristics	NA
• Experimental parameters	
○ Date / time (dd.mm.yyyy)	22.02.2008
○ Responsible investigator	IMZ
○ Surgery parameters	
▪ Anaesthesia / analgesia	isoflurane inhalation
▪ Perioperative monitoring	Rectal temperature, reflexes (leg withdrawal, cornea)
▪ Postoperative care	Temgesic 0.1 mg/kg, s.c.
○ Axonal tracing parameters	
▪ Injection target localization	Bregma coordinates: AP = 2,5 mm; ML = 4,0 mm (left); DV = 0.2 - 2.0 mm subpial Needle inserted with 25° rotation towards left from the midsagittal plane
▪ Tracer substance	Biotinylated dextran amine (10 kDa, Molecular Probes), 10% in 0.1M phosphate buffer, pH7.4
▪ Tracer delivery	Pressure injection with 1 ml Hamilton syringe and glass pipette (tip diameter = 30 µm)
○ Survival time	7 days
• Perfusion	
○ Date / time (dd.mm.yyyy)	29.02.2008
○ Responsible investigator	IMZ
○ Surgery parameters	
▪ Anaesthesia / analgesia	Nembutal 0,5 ml i.p.
○ Procedure	transcardial approach
○ Solutions	0,9% saline, 4% paraformaldehyde, 10% sucrose
• Tissue extraction	
○ Date / time (dd.mm.yyyy)	29.02.2008
○ Responsible investigator	IMZ
○ Storage	30% sucrose

Histology

• Tissue block processing	
○ Date / time (dd.mm.yyyy)	31.02.2008
○ Embedding	NA
○ Tissue blocking	Coronal
○ Procedure defining block face angle	External landmarks adjusted to flat skull position
○ Tissue marks	Shallow razor cut on right side
• Sectioning	
○ Date / time (dd.mm.yyyy)	31.03.2008
○ Equipment	Freezing microtome (Microm HM450)
○ Section thickness	50 µm
○ Sampling	All
○ Section numbering	Consecutively from first section including prefrontal cortex
○ Storage procedure	Saline buffer solution with 0.5 % paraformaldehyde
• Staining 1 BDA	
○ Date / time (dd.mm.yyyy)	01-02.04.2008
○ Sampling	1:2 from entire brain
○ Staining procedure(s)	Histochemistry for BDA
○ Mounting procedure	manual on standard 1" glass
• Staining 2 NR	
○ Date / time (dd.mm.yyyy)	06.05.2008 and 09.08.2008
○ Sampling	1:2 from entire brain (same selection as for BDA staining)
○ Staining procedure(s)	Neutral Red counterstaining for BDA sections
○ Mounting procedure	manual on standard 1" glass
• Staining 3 CO	
○ Date / time (dd.mm.yyyy)	17.04.2008
○ Sampling	1:2, from section #127 to section # 269
○ Staining procedure(s)	histochemistry for cytochrome oxidase
○ Mounting procedure	manual, on standard 1" glass, cover-slipped using Eukitt

Image acquisition

• Slide scanning	
○ Date / time (dd.mm.yyyy)	...
○ Equipment /software	Olympus Bx52 /20x Olympus UplanApo,NA 0.70 / NeuroLucida Virtual Slice (v 6.0)
○ File format(s)	TIFF
• Image processing	
○ Adjustments	rotate, crop
○ File format(s)	TIFF, PFF, JPEG

Databasing

• Filename / metadata link	metadataR603.pdf
• Location parameters	...

Analysis

• Injection site	
○ Procedure	Histological analysis of cytochrome oxidase patterns in SI (position) / Image analysis (size)
○ Position	SI barrel cortex, whisker D2
○ Size	Volume = 0,87 mm ³ ; largest area = 990261 µm ²

Original publication

Zakiewicz IM, van Dongen YC, Leergaard TB, Bjaalie JG (2010) - submitted manuscript