

Sample Behavioural Testing for Post-Stroke Recovery Studies

Test protocol general information:

- **Sample 2 week testing period post stroke**
- A minimum of 3 groups (e.g. stroke/stroke Tx/sham) are recommended, with 10-12 rats per group (Total: 30-36 rats)
- We provide testing in male or female rodents as required
- Testing post-surgery can begin on post-stroke day (PSD) 1
- Some tests require pre-surgery testing to provide baseline responses (*), or an acclimation period prior to testing (**)
- Testing days listed are suggestions only based on prior literature and experience - alternative test choices may require adjustments for testing days

TEST	MEASURE	TESTING DAY
Weight	Recovery/general health	PSD 1-7, 14
Neurologic assessment *	Sensory/neuromotor	Pre + PSD 1-8 / 10, 12, 14
Cylinder test	Limb preference/asymmetry	PSD 1,3,6,10,14
Open Field	Locomotor/emotionality	PSD 4, 11
Spontaneous alternation *	Cognition/perseveration	Pre + PSD 7, 13
Other possible tests:		
Rotorod *	Motor function	Pre + PSD 7, 14
Sticky label	Sensorimotor	PSD 2,9
Horizontal ladder (foot fault)*	Gross motor agility	PSD 5, 14
Staircase task	Fine motor/side bias	PSD 6, 13
Elevated Plus Maze	Emotionality	PSD 7, 14
Light/dark box	Emotionality	PSD 2, 8, 14
Barnes Circular Maze	Cognition	Pre + PSD 12, 13, 14
Radial 8 arm maze **	Cognition	Pre + PSD 4, 9, 14

Note: Ultrasonic vocalization (USV) measures can be added to most of our behavioural tests

IMPORTANT: The first five rows in the table above represent a recommended basic behavioural study design for post-stroke assessment. The “other possible tests” section provides alternative choices. Once the desired behavioural tests are selected, we can provide a more comprehensive quote and timeline for the entire study.

Please note: A further test of cognition/spatial memory (Morris water maze) is not listed here as it requires the rat to be submerged in water - a situation that is not recommended within the first 10 days following surgery. As several days are typically required to obtain useful data in this test, it has not been included in this "2 week" sample test list.