

Aron Test for Screen Anxiolytic Substances



Key Features

- An elegant and economical solution for screening anxiolytic drugs in mice
- Punishment based conflict test
- Shock with adjustable intensity

Parameters Measured

- Number of punished crossings

Components Included

- Aron box
- Control unit footswitch
- SeDaCom software
- Cables and connectors
- Instruction manual
- 2 year warranty

The Aron test or four plates test is an animal model of anxiety in which the exploration of the novel surroundings is suppressed by the delivery of a mild electric foot shock.

The apparatus consists of a cage floored by four identical rectangular metal plates (8 x 11 cm) separated from one another by a gap of 4 mm. The plates are connected to a shocker unit that can generate electric footshocks.

Following habituation period, the animal is subjected to an electric shock when crossing (transition) from one plate to another, i.e. two legs on one plate and two legs on another. Boissier et al. 1968 has described this test first. The number of punished crossings is generally calculated for a period of 60 seconds. A substance with anxiolytic properties induces an increase in the number of punished passages.

Specifications

Cage Materials	White, transparent plastic and stainless steel
Dimensions	18 x 25 x 16 cm
Shock	0-3 mA, timer 0-10 sec, square pulse
Shock Delivery	Footswitch

Order #	Model	Product
PY2 76-0006	LE830*	Aron Test Box

* Shock generator (PY2 76-0159) must be ordered separately.

Citations

- Foreman MM et al. (2009) Anxiolytic effects of lamotrigine and JZP-4 in the elevated plus maze and in the four plate conflict test. *Eur J Pharmacol.* 602(2-3):316-20. (mouse, USA)
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- Masse F et al. (2008) Anxiolytic-like effects of DOI microinjections into the hippocampus (but not the amygdala nor the PAG) in the mice four plates test. *Behav. Brain Res.* 188(2):291-297 (mouse, France)
- Mirza NR et al (2008) NS11394 [3'-[5-(1-hydroxy-1-methyl-ethyl)-benzimidazol-1-yl]-biphenyl-2-carbonitrile], a unique subtype-selective GABAA receptor positive allosteric modulator: in vitro actions, pharmacokinetic properties and in vivo anxiolytic efficacy. *J Pharmacol Exp Ther.* 327(3):954-68. (mouse, Denmark)
- Masse F et al. (2007) Anxiolytic-like effect of 5-HT2 ligands and benzodiazepines co-administration: Comparison of two animal models of anxiety (the four-plate test and the elevated plus maze). *Behav. Brain Res.* 177(2):214-226 (mouse, France)
- Petit-Demouliere B and Bourin M (2007) Temporal parameters of one-trial tolerance to benzodiazepines in four-plate test-retest. *Behav. Brain Res.* 183(2):222-225. (mouse, France)
- Petit-Demouliere B et al. (2007) Factors triggering abolishment of benzodiazepines effects in the four-plate test-retest in mouse. *Eur. Neuropsychopharmacol.* In press (mouse, France)
- Masse F et al. (2007) Effect of GABAergic ligands on the anxiolytic-like activity of DOI (a 5-HT_{2A/2C} agonist) in the four-plate test in mouse. *Eur. Neuropsychopharmacol.*;17(6-7): 483-91 (mouse, France)

