

## CENTRAL NERVOUS SYSTEM

### Barbituric-induced sleep

This sleeping test is used to detect agents with sedative/depressant or stimulant effects; stimulant drugs reduce sleeping time and increase sleep latency, and depressant drugs increase sleeping time and reduce sleep latency<sup>1,2</sup>.

**Species:** *Mus musculus* (Swiss)

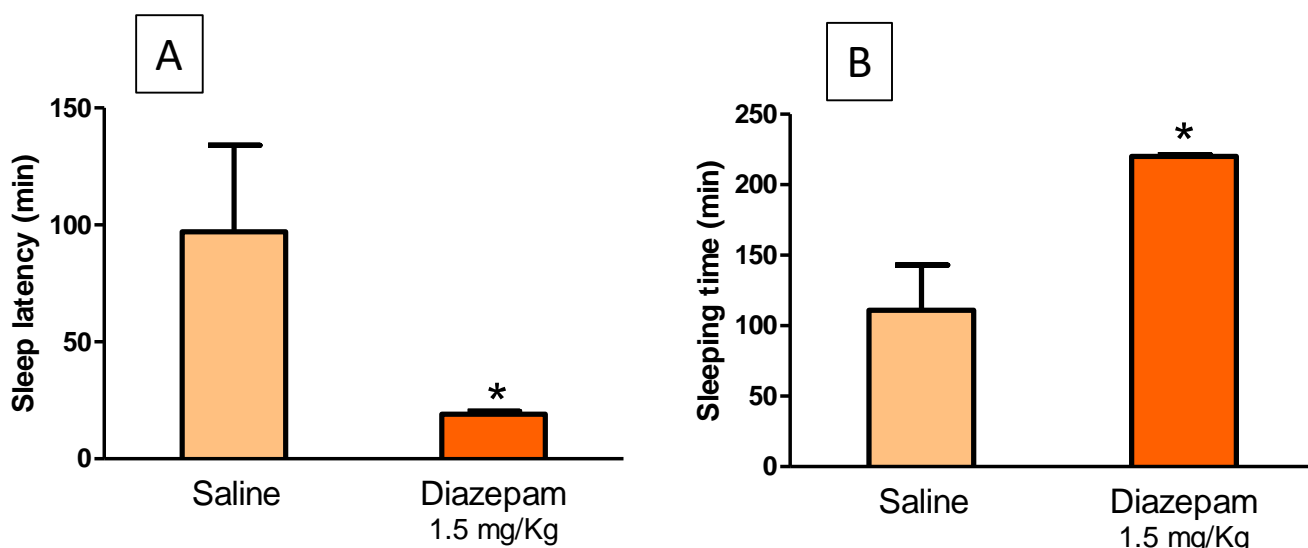
**Number of animals/group:** 7 - 8 animals

**Route of administration:** upon request

**Treatment mode:** upon request

**Main read-outs:** sleep latency and sleeping time

### Validation Data



**Figure:** Animals were treated with saline or diazepam (1.5mg/kg) 30 minutes before receiving phenobarbital (100 mg/kg i.p.). Sleep latency (min) is the time between the injection of the phenobarbital and the loss of the righting reflex. Sleeping duration (min), that is, the time between the loss of the righting reflex and the regaining of the righting reflex was also evaluated. Diazepam-treated animals decrease their sleep latency (A) and increase sleeping time (B) compared to saline-treated animals. Each column represents media  $\pm$  standard error. Mann-Whitney test was used for statistical analysis \*,  $P < 0.05$ .

To avoid bias and to allow reproducibility all *in vivo* experiments follow the ARRIVE guidances<sup>3</sup>. Mice colony originated from Charles River Laboratories is breed and maintained in SPF conditions. Raw data are inspected by quality assurance unity. The experimental procedures were approved by the CIEnP Committee on the Ethical Use of Animals.

#### References:

- 1 -da Silva DPB *et al.* Chemical characterization and pharmacological assessment of polysaccharide free, standardized cashew gum extract (*Anacardium occidentale* L.). *J Ethnopharmacol.* 2018 Mar 1;213:395-402.
- 2-Chu QP1, Wang LE, Cui XY, *et al.* Extract of *Ganoderma lucidum* potentiates pentobarbital-induced sleep via a GABAergic mechanism. *Pharmacol Biochem Behav.* 2007 Apr;86(4):693-8.
- 3 - Kilkenny C, Browne WJ, Cuthill IC, Emerson M, Altman DG. Animal research: reporting in vivo experiments: The ARRIVE guidelines. *PLoS Biol.* 8 (6): e1000412, 2010.

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