



Lactium

**CDB test in vivo on
Wistar male rats**

**Comparison between
Lactium™ versus
L-Theanine**

March 2006



Comparison between lactium™, L-Theanine on rats (CDB model)

1- MATERIEL & METHODS

Conditioned Defensive Burying method

- Acclimatization of the rats during a 7-days period. Oral administration was made 1 hour before the test
- After shock administration (stressing event), the behavior of the rats were recorded during 5 minutes
- Global anxiety score = Sum of the rankings for three parameters:
 - duration of probe-burying;
 - number of head stretching towards the probe
 - percentage of approaches towards the probe followed by retreats



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Products orally administrated (per os) :

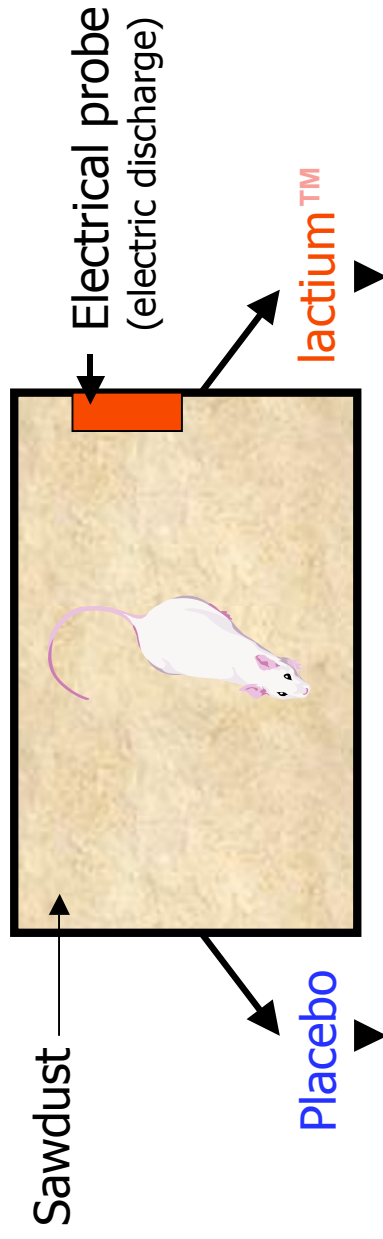
- **Reference** : saline solution
- **L-Theanine**: three doses of 15, 50 and 100 mg/kg
=> *Respectively equivalent for a 70 kg man to 200 mg, 666 mg and 1332 mg daily intake*
- **lactium™** : 15 mg/kg
=> *Equivalent for a 70 kg man to 150 mg daily intake*



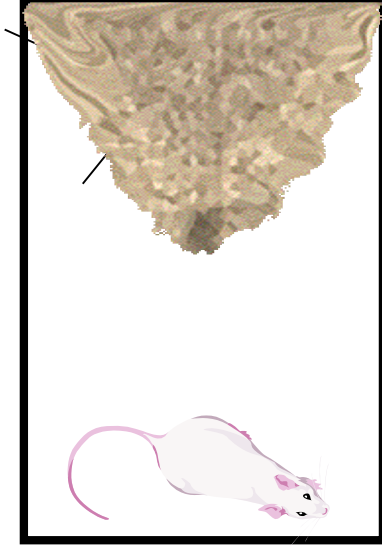
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1- MATERIEL & METHODS

Conditioned Defensive Burying method

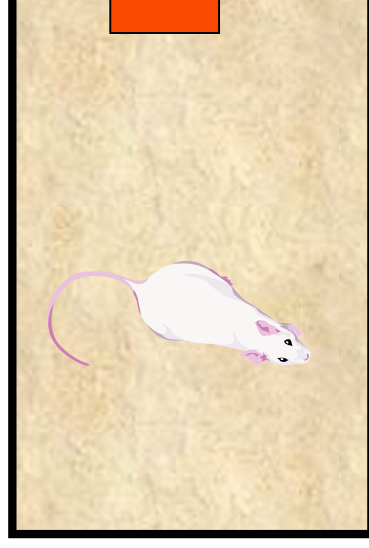


ANXIOUS BEHAVIOR



The rat buries the electrical probe

NO ANXIOUS BEHAVIOR

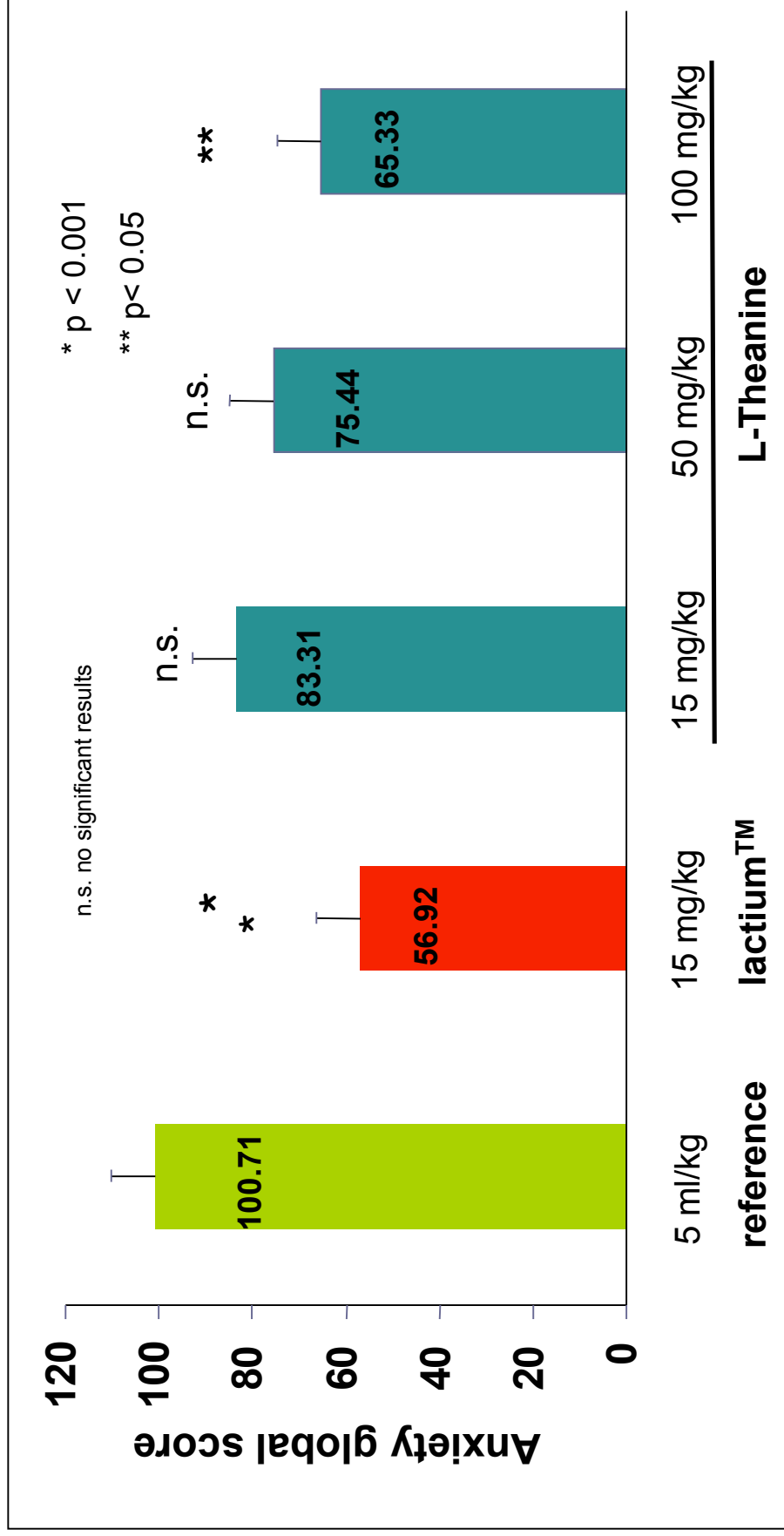


The rat doesn't bury the electrical probe



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2- RESULTS





Comparison between lactium™, L-Theanine on rats (CDB model)

3- COMMENTS

- ↳ Anxiety global score on rats who have ingested lactium™ at a 15 mg/kg dosage is significantly lower ($p < 0.001$) than in the saline solution group (reference).
- ↳ Anxiety global score on rats who have ingested L-Theanine at a 100 mg/kg dosage is significantly lower ($p < 0.05$) than in the saline solution group.
- ↳ No significant result was observed with a lower dosage of L-Theanin.



Comparison between lactium™, L-Theanine and Diazepam on rats (CDB model)

Conclusion

In the conditions of this test, the dosage of L-Theanine must be 6.5 time more than lactium™ dosage to obtain a similar result.