



Taste Preference Thresholds for L-Amino Acids in Spider Monkeys (*Ateles geoffroyi*)



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Background

Amino acids as the building blocks of proteins are presumed to have an importance in food selection and species with a low protein diet need to be able to maintain their protein requirements.



Aim

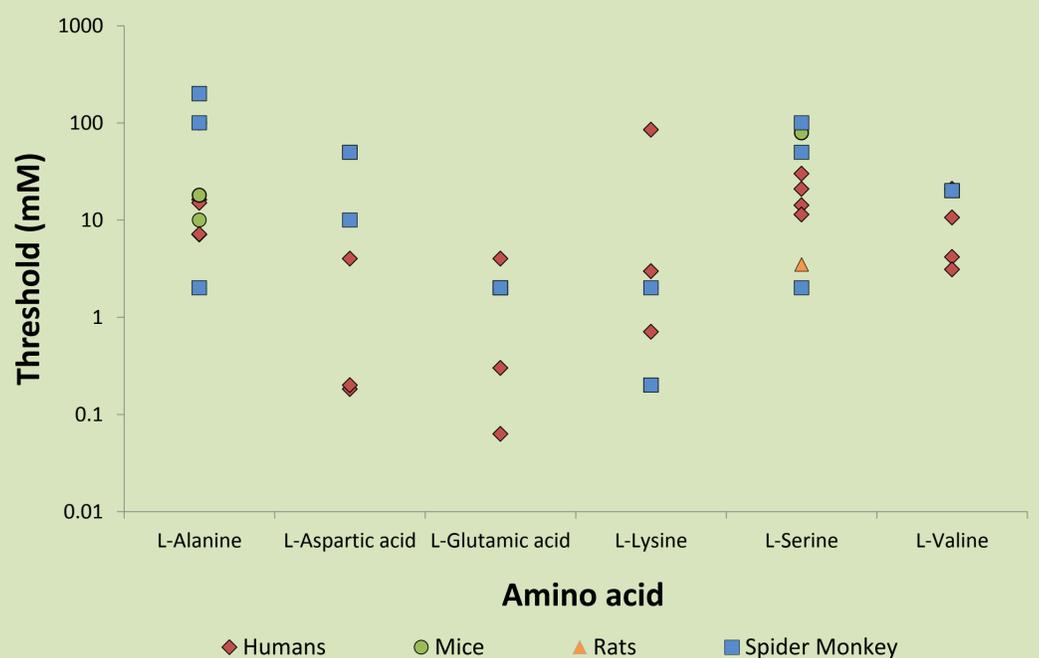
The aim of this project was to assess the sensitivity of the sense of taste in spider monkeys for L-amino acids by determining taste preference thresholds. A comparison between the threshold values among different species should allow for the assessment of possible correlations between dietary habits and taste sensitivity

Results

With these four individuals the threshold concentrations were as low as 20 mM for L-Valine, 10 mM for L-Aspartic acid, 2 mM for L-Alanine, L-Glutamic acid and L-Serine and 0.02 mM for L-Lysine.

Method

Using a two bottle preference test, four spider monkeys were tested for their ability to discriminate various concentrations of six L-amino acids from plain water until they reach their taste detection thresholds.



Comparisons of taste preference threshold in spider monkeys, rats, and mice, and taste detection thresholds in humans for the six amino acids tested.

Conclusion

The spider monkeys' taste preference thresholds for the amino acids are mostly in the range of humans, rats and mice with an exception for L-Aspartic acid where spider monkeys had an higher threshold.

