

NOOTROPIC
 FOR OPTIMAL BRAIN HEALTH

Nootropics are supplements that help support memory, focus and concentration for optimal brain function.

- Memory and focus support
- Promotes awareness and perception
- Supports learning capacity and speed
- Assists in maintaining healthy neurotransmitter levels



Sabroxy® is the nootropic that supports healthy neuronal function.

Standardized extract derived from the dried bark of Indian trumpet tree (*Oroxylum indicum*)



Contains a minimum of 10% Oroxylin A

Composition comprising Oroxylin A, Baicalein and Chrysin

Sabroxy Patents: European EP1986670 and USA US 7,855,200

Sabroxy® in Action

BDNF

Brain Derived Neurotrophic Factor

BDNF acts on the neurons and helps to support the survival of existing neurons, and encourage the growth and differentiation of new neurons and synapses.

BDNF is important for long term memory.

The activation of the BDNF-TrkB pathway is important in the development of short-term memory and the growth of neurons.

Sabroxy® improves levels of Brain Derived Neurotrophic Factor (BDNF), in a dose dependent manner



Gonzalez, M. C., A. Radiske and M. Cammarota (2019). "On the Involvement of BDNF Signaling in Memory Reconsolidation." *Frontiers in Cellular Neuroscience* 13(383).

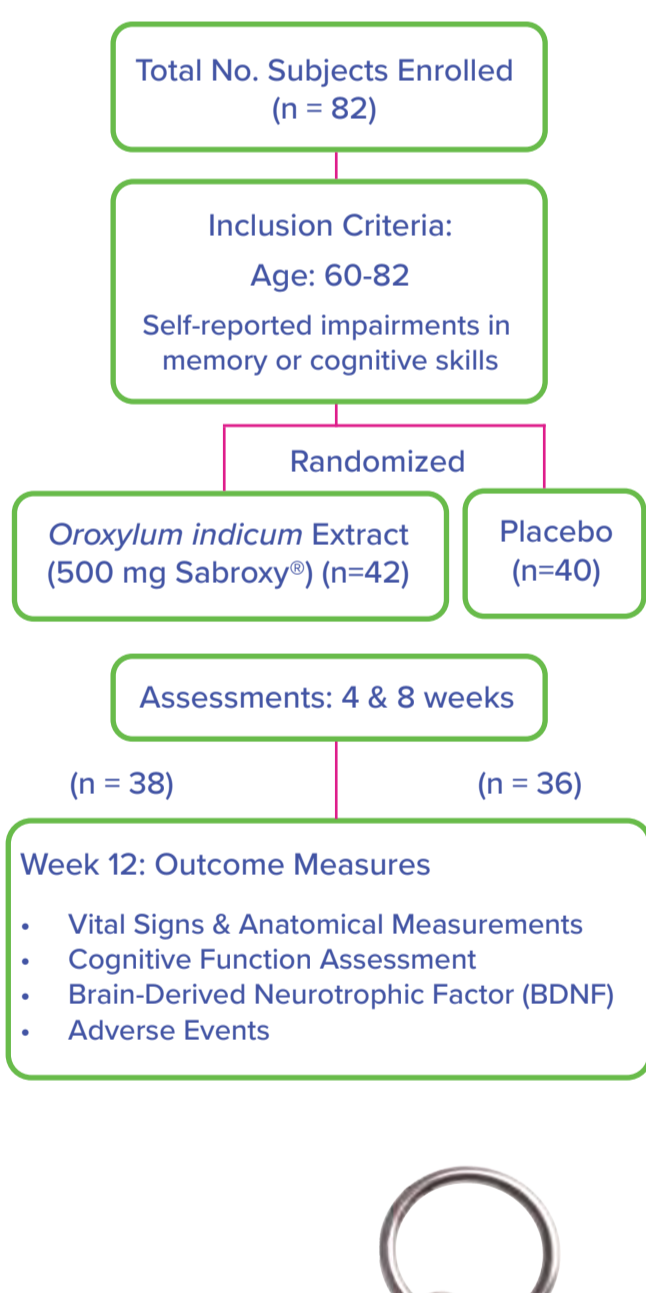
Clinical Study



Oroxylum indicum Extract

Randomized, Double-Blind, Placebo-Controlled Study

Study Design



- OUTCOME MEASURES**
- Primary Outcome Measures**
- Computerized mental performance assessment system (compass) assessment at 0 and 12 weeks
- Secondary Outcome Measures**
- Control, autonomy, self-realization, and pleasure (casp-19) at baseline, and weeks 4, 8, and 12
 - Cognitive failures questionnaire (cfq) at baseline, and weeks 4, 8, and 12
 - Montreal cognitive assessment (moca) at baseline and week 12
 - Brain Derived Neurotrophic Factor (BDNF) analysis at baseline and week 12
 - Adverse events

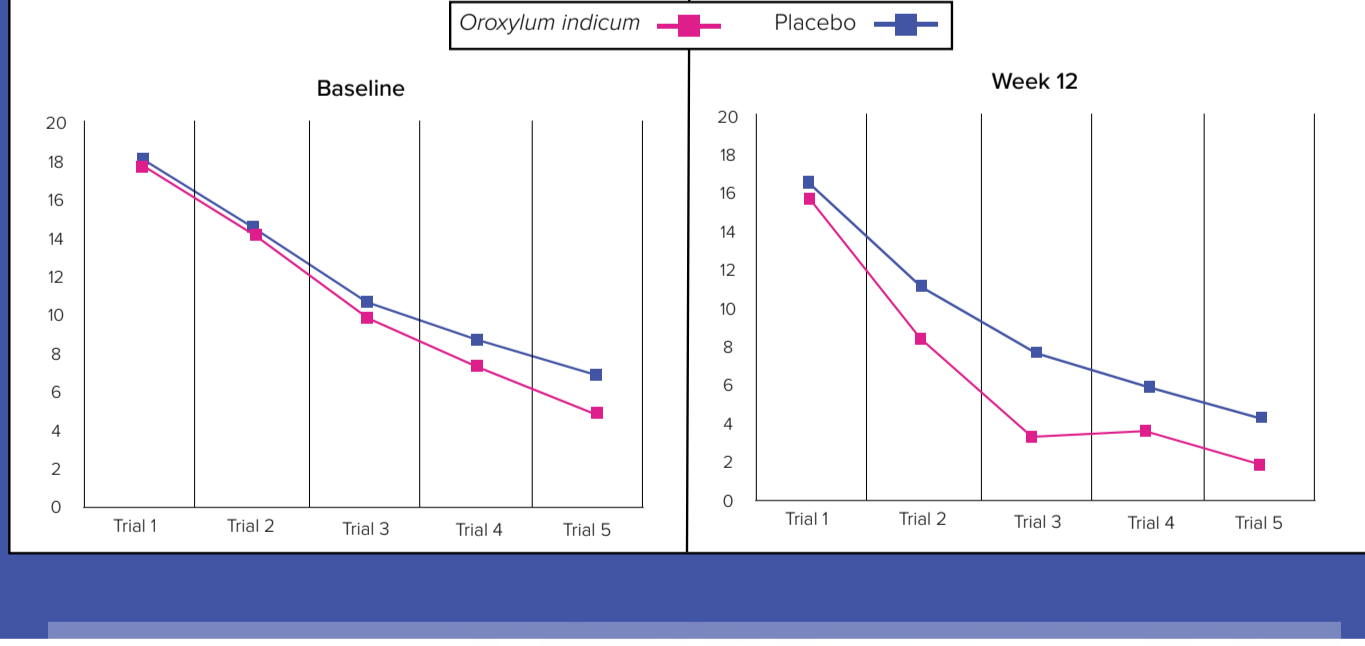


The COMPASS (Northumbria University, Newcastle upon Tyne, UK) is a software application for the presentation of computerized standard and novel cognitive tasks that assess episodic memory and speed of response.

- The tasks included
- Word presentation
- Immediate word recall
- Picture presentation
- Computerized location learning
- Simple reaction time
- Choice reaction time
- Numeric working memory
- Delayed word recall
- Delayed picture recognition
- Delayed location recognition

Lopresti AL, Smith SJ, Majeed M, Drummond PD. Effects of an Oroxylum indicum Extract (Sabroxy®) on Cognitive Function in Adults With Self-reported Mild Cognitive Impairment: A Randomized, Double-Blind, Placebo-Controlled Study. *Front Aging Neurosci.* 2021;13:728360. doi: 10.3389/fnagi.2021.728360.

Sabroxy® group showed faster rate of learning and speed of responses compared to the placebo group.



Study Conclusions

- Improvements in episodic memory
- Improved responses in immediate word recall and numeric working memory
- Increased BDNF concentrations over time

Sabroxy® supplementation can help to preserve cognitive function, improve memory, help maintain healthy nerve function, and thus maintain good neurological health.

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Sabroxy Studies

- S.R. Pondugula, A. Harshan, S. Ramesh, M. Govindarajulu, M. Almaghribi, M. Majrashi, K.L. Abbott, R. Nadar, M. Alturki, J.M. Salamat, F. Smith, M. Majeed, K. Nagabhushanam, T. Moore, J. Ren, M. Dhanasekaran, Cardioprotective Effects of Oroxylum indicum Extract Against Doxorubicin and Cyclophosphamide-Induced Cardiotoxicity, *Cardiovascular Toxicology* 22(1) (2022) 67-77
- A.L. Lopresti, S.J. Smith, M. Majeed, P.D. Drummond, Effects of an Oroxylum indicum Extract (Sabroxy®) on Cognitive Function in Adults With Self-reported Mild Cognitive Impairment: A Randomized, Double-Blind, Placebo-Controlled Study, *Frontiers in Aging Neuroscience* 13 (2021)
- S.R. Pondugula, M. Majrashi, M. Almaghribi, S. Ramesh, K.L. Abbott, M. Govindarajulu, K. Gill, E. Fahoury, N. Narayanan, D. Desai, J. Ren, R. Nadar, T. McElroy, T. Moore, M. Majeed, N. Kalyanam, M. Dhanasekaran, Oroxylum Indicum ameliorates chemotherapy induced cognitive impairment, *PLOS ONE* 16(6) (2021) e0252522.
- S.R. Pondugula, J.M. Salamat, K.L. Abbott, P.C. Flannery, M. Majrashi, M. Almaghribi, M. Govindarajulu, S. Ramesh, S.K. Onteru, M. Sandey, C.C. Huang, K. Gill, N. Narayanan, E. McElroy, D. Desai, R. Nadar, T. Moore, K. Nagabhushanam, M. Majeed, M. Dhanasekaran, Oroxylum indicum extract, at a physiologically relevant dosage, does not induce hepatotoxicity in C57BL/6J mice, *Natural product communications* 16(5) (2021).
- J.M. Salamat, K.L. Abbott, Majrashi, M., Almaghribi, M., Govindarajulu, M., Ramesh, S., Gill, K., Fahoury, E., Narayanan, N., Desai, D., Nadar, R., McElroy, E., Moore, T., Nagabhushanam, K., Majeed, M., Pondugula, S. and Dhanasekaran, M. (2020), Oroxylum indicum extract does not induce hepatotoxicity in mice. *The FASEB Journal*, 34: 1-1. doi:10.1096/fasebj.2020.34.s1.07406
- S.R. Pondugula, M. Majrashi, M. Almaghribi, K.L. Abbott, M. Govindarajulu, S. Ramesh, K. Gill, E. Fahoury, N. Narayanan, D. Desai, R. Nadar, E. McElroy, T. Moore, K. Nagabhushanam, M. Majeed, M. Dhanasekaran, Oroxylum indicum extract prevents chemotherapy-induced cognitive impairment in mice, *The FASEB Journal* 34(S1) (2020) 1-1.
- Muhammed Majeed, Alpna Pande, Kalyanam Nagabhushanam, Shaheena Majeed & Anurag Pande (2017) Comparative chemical fingerprinting of Oroxylum indicum and Scutellaria baicalensis using liquid chromatography and mass spectrometry, *Journal of Liquid Chromatography & Related Technologies*, 40:14, 732-740.



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*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, mitigate or prevent any disease.