



Clinically proven to improve alertness and focus up to 5 hours with and without caffeine

enXtra® from *Alpinia galanga* is a DNA-authenticated, stim-free energy ingredient that provides fast, effective and safe energy with no crash. In a 53-person, double-blind, double-dummy human clinical trial, It was shown to improve mental alertness & acuity for up to 5 hours without increasing heart rate or blood pressure. It can be used as a replacement for caffeine or used with caffeine to prevent crash and prolong benefits. enXtra® is easy to formulate with, water soluble and has a pleasant taste profile.

- enXtra® is a galangal extract that delivers fast, effective and safe results for improving mental alertness & acuity
- It does not increase heart rate or blood pressure and is safe & effective for 5 hours without the caffeine 'crash'.
- enXtra® is water soluble and can be formulated with or without caffeine
- It brings a mild and pleasant taste

Study Findings

- Maximum increase in alertness from baseline was observed at 3 hour interval
- The combination of caffeine with enXtra® significantly reduced mean response time as compared to placebo
- Improved ability to achieve and maintain high arousal levels to better process new information.
- The newly published study (2020) re-demonstrate the efficacy and the safety for a period of 12 weeks

Supported by human clinical trials

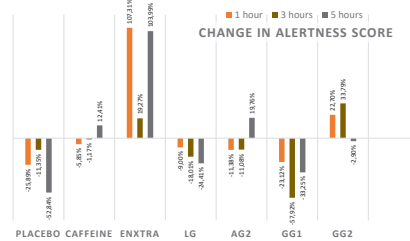
Pilot Study : Human Safety & Efficacy

300 mg of enXtra® *Alpinia galanga* demonstrated optimal improvement in alertness for up to 5 hours when compared to other extract groups (70 caffeine habituated subjects)

Second Human Study

Randomized, double blind, double dummy, placebo controlled crossover study design : 53 caffeine habituated individuals with 4 study arms

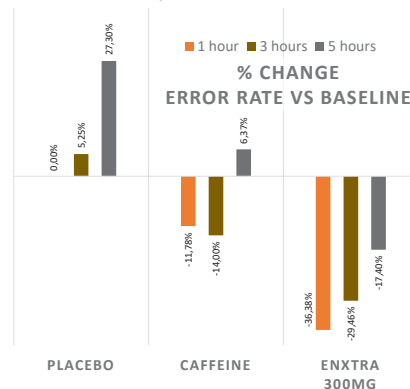
- Placebo
- Caffeine (200mg)
- enXtra® (300 mg)
- enXtra® (300 mg) + Caffeine (200mg)



Assessments were taken at 1-hour, 3-hour and 5-hour time intervals

Standard assessment tools :

- Attention NetworkTest
- Psychomotor Vigilance Task
- Karolinska Sleep Scale score



Molecular Docking Studies

To better understand how enXtra® provides 5hrs of Mental Alertness & Sustain attention, without the crash, a molecular docking study of a database of molecules of enXtra® was performed against a panel of target proteins responsible

Sharpens alertness and focus for up to 5 hours
 No increase in blood pressure or heart rate
 Amplifies caffeine benefits without the "crash"
 Dopamine release
 AchE (Acetylcholine esterase) inhibition

for enhancing attention network components; Dopamine (DA) is the primary neurotransmitter responsible for many physiological processes including alertness, focus, feeling of well-being and improved productivity. Dopamine reuptake through the plasma membrane protein, Dopamine transporter (DAT), is the primary mechanism for regulating dopamine concentration suite. Total 43 compounds, 25 belonging to EnXtra, were subjected to docking. As evident by glide score, active compounds of enXtra® demonstrated Glide score better than caffeine and increased dopamine levels by blocking its uptake. This increase in dopamine levels can enhance visuo-spatial performance and mental clarity, leading to improved mental alertness and better focus.

In the current study, several compounds of enXtra® namely exhibited significant Glide score for AchE (Acetylcholine esterase) target enzyme, demonstrating their potential to inhibit AchE.

Hence it can be concluded that bioactive molecules from enXtra® decrease dopamine uptake and inhibit the AchE target protein which leads to attention-enhancing effect and better understanding

Manufacturing

Gentle, solvent free extraction for optimum bioactives. DNA match authentic galangal.

Responsible Sourcing

- Skillful hands cultivating galanga for more than three generations
- Grown in hilly terrain away from pollution
- Cultivated without pesticides
- Hand picked at optimal daytime temperature
- Natural drying on high altitude, stony land near farm