



– Clinically Proven –

Sensoril[®]
vitalizing mind & body



NON GMO



WATER SOLUBLE



ORGANIC



SAFE



Sensoril[®]
vitalizing mind & body



#1 Selling Ashwagandha Extract for Stress and Cognition

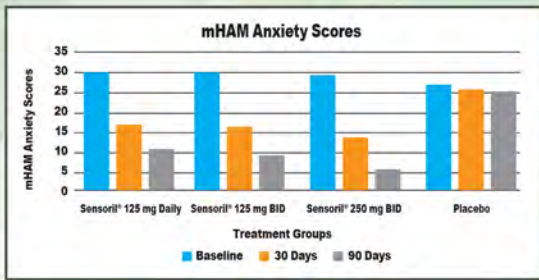
Sensoril® is the best-selling branded Ashwagandha extract. It is derived from a patented blend of the roots and leaves of *Withania somnifera*, an adaptogen often referred to as Indian Ginseng. **Sensoril®** has been in the United States market for more than fourteen years and yields the highest level of bioactives of any branded ashwagandha extract. It is supported by 11 clinical studies.

THE HEALTH ADVANTAGE:

- **Reduces Stress, Fatigue, and Sleeplessness**
- **Improves Mental Cognition**
- **Supports Cardiovascular Health**
- **Decreases hsCRP**, a biomarker for inflammation
- **Supports Endothelial Function** and the lipid profile
- **Supports Joint Health**

UNIQUE & DISTINCT:

- **Vegetarian & non-GMO**
- **Effective:** Has been in the U.S. market for 14 years with ever-growing sales volume
- **Water-Soluble:** Perfect for stick packs and sachets
- **Prepared by a Totally Aqueous Extraction Process**
- **An Experiential Product**
- **Certifications:** Organic, Kosher, and Halal
- **Safe:** GRAS affirmed, pre-DSHEA
- **Quality Control** is done by HPLC and HPTLC
- **Sensoril®** is multi-patented



STRESS

A standardized *Withania somnifera* extract reduces stress related parameters in chronically stressed humans – a double-blind, randomized, placebo-controlled study. *Biswajit Auddy, Jayaram Hazara, Achintya Mitra, Bruce Abedon, Shibnath Ghosal. JANA, Vol. II, No. 1, 2008, pp. 50-56.*

Comparative effect of *Withania somnifera* and Panax Ginseng on swim-stress induced impaired energy status of mice. *Sauryya Bhattacharyya, Debasish Pal, Dipankar Banerjee, UpalK Majumder, Shibnath Ghosal. Pharmacologyonline 2: 421-432 (2009).*

COGNITION

Effects of standardized aqueous extract of *Withania somnifera* on tests of cognitive and psychomotor performance in healthy human participants. *Usharani Pingali, Raveendranath Pilli, Nishat Fatima. Pharmacognosy Research, January-March 2014, Vol. 6, Issue 1, pp. 12-18.*

Randomized, placebo-controlled adjunctive study of an extract of *Withania somnifera* for cognitive dysfunction in bipolar disorder. *K.N.Roy Chrnigappa, Christopher Bowie, Patricia Schlicht, David Fleet, Jaspreet Brar, Ripu Jindal. J Clin Psychiatry, 74:11, November 2013, pp. 1076-1083.*

TEST	REACTION TIME WITH SENSORIL [®] , ms		REACTION TIME WITH PLACEBO, ms	
	Pre Treatment	Post Treatment	Pre Treatment	Post Treatment
Finger Tapping	187±16	183±17 (ns)	192±14	194±14 (ns)
Simple Reaction Test	306±39	287±43 **	313±45	316±26 (ns)
Choice Discrimination Test	471±34	466±51 *	476±34	477±30 (ns)
Digit Symbol Substitution Test	1696±263	1567±233 **	1690±279	1739±313 (ns)
Digit Vigilance Task	1360±57	1317±88 **	137±79	1395±82 (ns)
Card Sorting Test	96±19	94±13 *	98±17	98±20 (ns)

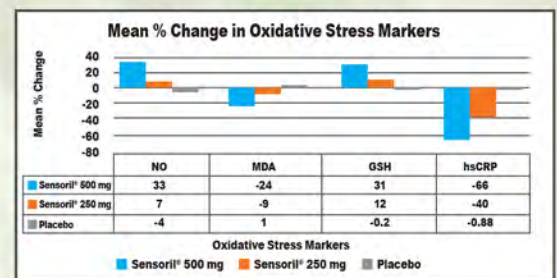
P Value Compared to Baseline in Reaction Time
ns – Not Significant; * p<0.05; ** p<0.001

CARDIOVASCULAR HEALTH

Effect of *Withania somnifera* extract on mental stress induced changes on hemodynamic properties and arterial wave reflections in healthy subjects.

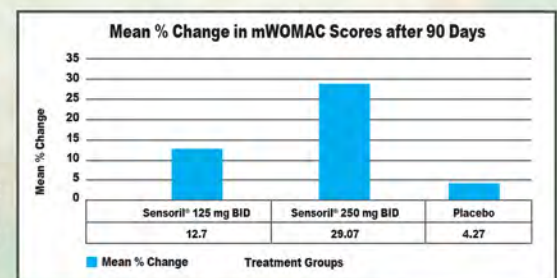
Usharani Pingali, Raveendranath Pilli, Nishat Fatima. Current Topics in Nutraceutical research, Vol. 11, No. 4, pp. 151-158, 2013.

Evaluation of a highly standardized *Withania somnifera* extract on endothelial function and biomarkers of oxidative stress in patients with type 2 diabetes: A randomized, double-blind, placebo-controlled study. *Pingali Usharani, Nishat Fatima, Chiranjeevi Uday Kumar, Int. J. Ayur. Pharma Research, 2014; 2(3): 22-32.*



A comparative study to evaluate the effect of highly standardized extracts of *Phyllanthus emblica*, *Withania somnifera* and their combination on endothelial dysfunction and biomarkers in patients with type 2 diabetes mellitus. *P. Usharani, P.V. Kishan, Nishat Fatima and C. Uday Kumar. IJPSR, 2014; Vol. 5(7): 2687-2697.*

Evaluation of the effect of *Withania somnifera* (Sensoril[®]) on cold pressor test induced cardiovascular changes in healthy human subjects. *Raveendranadh P, Praveen Reddy A, Nishat Fatima, Muralidhar N, Usharani P. Nizam's Institute of Medical Sciences, Hyderabad, India. (Pending Publication)*



JOINT HEALTH

Evaluation of efficacy and tolerability of an aqueous extract of roots plus leaves of *Withania somnifera* 250 mg twice daily and 125 mg twice daily in subjects with knee joint pain and discomfort. *Ramakanth GSH, Uday Kumar, C.Kishan PV, Usharani P. Nizam's Institute of Medical Sciences, Hyderabad, India. (Pending Publication)*

Evaluation of the analgesic activity of standardized aqueous extract of *Withania somnifera* in healthy human volunteers using hot air pain model. *P.Nalini, K.Manjunath, N., K.Sunil Kumar Reddy, P.Usharani. Research Journal of Life Sciences (May 2013), Vol. 01, Issue 02, pp. 1-6.*

A randomized, double-blind, placebo controlled, crossover study to evaluate the analgesic activity of *Withania somnifera* (SENSORIL[®]) in healthy human volunteers using mechanical pain model. *P.Usharani, et.al. Nizam's Institute of Medical Sciences, Hyderabad, India. (Pending Publication)*

Sensoril®: A Standardized Extract of *Withania somnifera* (Roots & Leaves)

Product Description		
Appearance:	Fine, free-flowing powder	
Color:	Brown	
Odor:	Characteristic	
Taste:	Mildly bitter	
Analytical Profile	Specifications	Method
Actives		
Withanolide glycosides	≥ 10% (w/w)	HPLC
Oligosaccharides	≥ 32% (w/w)	HPLC
Withanolide aglycone (as Withaferin A)	≤ 0.5% (w/w)	HPLC
Water	≤ 6% (w/w)	Karl-Fischer
Insoluble (Inorganic)	≤ 8% (w/w)	Gravimetry
Water-soluble extractive value:	≥ 90% (w/w)	Gravimetry
Particle size		
Passing through 40 mesh size	> 95% (w/w)	Sieve Analysis
Passing through 80 mesh size	> 85% (w/w)	Sieve Analysis
Bulk density	0.58-0.73 gm/cc	USP
Heavy Metals		
Lead (Pb)	≤ 3 ppm	ICP-MS USP<730>
Arsenic (As)	≤ 2 ppm	ICP-MS USP<730>
Cadmium (Cd)	≤ 1 ppm	ICP-MS USP<730>
Mercury (Hg)	≤ 1 ppm	ICP-MS USP<730>
Microbiological profile		
Aerobic bacteria	≤ 5000 CFU/g	USP<2021>
Yeast and mold	≤ 1000 CFU/g	USP<2021>
Total Coliform Bacteria	≤ 50 CFU/g	AOAC 991.14
<i>Escherichia coli</i>	absent in 1 g	USP<2022>
<i>Salmonella species</i>	absent in 10 g	USP<2022>
Staphylococcus	Negative	USP<2022>
Enterobacter	≤ 100 CFU/g	AOAC 2003.01
Storage: Store in original, sealed containers at +15° to +25°C, avoid light. Opened containers should be protected from exposure to moisture. Material is hygroscopic.		
Stability: 3 years from the date of manufacture		

