



LIFTMODE
47 W. Polk St. STE 100-241
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CERTIFICATE OF ANALYSIS

Magnolia Bark Extract

(Magnolia officinalis)

Material Lot #: 20160301 Manufacture Date: 03/01/2016
Country of Origin: China Expiration Date: 02/28/2018

Analysis	Claim	Result
Magnolia Bark Extract	≥95%	96.6%

Test	Specification	Result
Appearance	White to beige powder	Complies
Loss on Drying	<5.0%	0.3%
Heavy Metals (µg/g)	<10 ppm	Complies
Arsenic	<0.5 ppm	Complies
Lead	<0.5 ppm	Complies
Cadmium	<0.5 ppm	Complies
Mercury	<0.1 ppm	Complies
Total Plate Count	<1000 cfu/g	50 cfu/g
Mould and Yeast	<100 cfu/g	10 cfu/g
Salmonella	Negative Result	Negative Result
E. Coli	Negative Result	Negative Result
Active Ingredient (HPLC)		
Magnol + Honokiol	>95.0%	96.6%
Honokiol	N/A	46.4%
Magnolol	N/A	50.2%

Conforms to Standard

Magnolia Bark Extract should be stored at or below room temperature in a tightly sealed durable container. Magnolia Bark Extract should be protected from excess heat, direct sunlight, excess humidity and moisture. Magnolia Bark Extract has a stable shelf life of 2 years from the date of manufacture when properly stored.



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(Magnolia officinalis)

Product Name	Magnolia Bark	Client Lot Number	20160301
Report Date	06/11/16	Laboratory #	7037

Test	Method	Result
Honokiol and Magnolol	HPLC	94.2%
Heavy Metals	ICP-MS	ppm
Arsenic	ICP-MS	<0.001
Cadmium	ICP-MS	<0.001
Lead	ICP-MS	0.007
Mercury	ICP-MS	0.003
Total Plate Count	AOAC 966.23	<10 cfu/g
Yeast & Mold	FDA BAM	<10 cfu/g, <10 cfu/g
Salmonella	AOAC 998.09	Negative
Coliform	AOAC 991.14	<10 cfu/g
E. coli	AOAC 991.14	<10 cfu/g

Collin Thomas *CT*
Laboratory Manager

06/11/2016
Date

6/11/16

Magnolia bark extract

- **Reduces anxiety**
- **Lowers cortisol levels**
- **Magnolia bark is an ancient traditional remedy from Eastern medicine used for the treatment of stress and anxiety**
- **Magnolia bark extract contains mostly magnolol which is effective in reducing anxiety and lowering cortisol levels in the blood as well as stimulating natural steroids like glucocorticoids.**
- **Magnolia bark extract is normally used at around 300-500 mg when it is very pure**
- **Side effects of the use of magnolia bark are minimal and there are plenty of side uses including treatment for bad breath and treatment for seizures and epilepsy.**

Background

Magnolia bark is a well-known and well-used natural remedy for the treatment of stress and anxiety as well as a treatment for over-eating due to stress. It has been used in Eastern medicine for thousands of years, and the first recorded use was in 100 A.D. by Shennong Jing:

“houpu is bitter and warm, non-toxic, mainly treating wind-stroke, cold damage, headache, cold and heat, fright qi, blood impediment, and dead muscle. It removes the three kinds of worms. It grows in mountains and valleys.”

The bark was a common ingredient in herbal recipes written around 220 A.D. by respected Chinese herbal practitioners, some of which are still used in traditional Chinese medicine today. Often the bark would be made in a formula which combined the use of other plants such as rhubarb, cinnamon, ginger and liquorice.¹

Magnolia bark benefits/effects

Two groups of chemicals, biphenols and essential oils, give magnolia bark its characteristic smell, which was thought to awaken the spleen in ancient Chinese medicine. The biphenols are the main components of magnolia bark which give it its pharmacological properties and these major chemicals are magnolol and honokiol.

Magnolia has been tested in several recent studies and has been shown to have a marked effect on anxiety and stress and one of the major chemicals in the bark, magnolol, has been found recently to stimulate steroidogenesis in mammalian adrenal cells.² One important group of steroids produced by the adrenal cells are the glucocorticoids, which have anti-asthmatic effects.³ This is interesting because one of the indications for using magnolia remedies in ancient Chinese medicine was for the treatment of asthma.

“Magnolia officinalis, a Chinese medicinal herb, has long been used for the relief of fever, headache, anxiety, diarrhoea, stroke, and asthma. Magnolol, one of the compounds isolated from Magnolia officinalis, acts on the central nervous system, inhibits platelet coagulation and lymphocyte proliferation, and is an anti-inflammatory agent and smooth muscle relaxant.”

One study showed that extracts of magnolia in conjunction with a patented extract from *Phellodendron amurense* (a plant with similar biphenol compounds) could lower stress in both overweight men and women. This double-blind placebo test study used 56 candidates who had been screened for moderate stress and anxiety symptoms, who were then treated with either the magnolia, phellodendron combination (MP) or placebo.

“These results indicate that daily supplementation with a combination of Magnolia bark extract and Phellodendron bark extract (Relora®) reduces cortisol exposure and perceived daily stress, while improving a variety of mood state parameters, including lower fatigue and higher vigor. These results suggest an effective natural approach to modulating the detrimental health effects of chronic stress in moderately stressed adults.”⁴

The same study showed the ability of magnolia bark, in combination with other herbs, *“to reduce both cortisol exposure and the perception of stress/anxiety, while improving weight loss in subjects with stress-related eating.”* There is also a synergistic relationship between magnolol and ginger rhizome, which has been shown to produce strong anti-depressant effects.

Magnolia bark extract recommended use

According to the previously quoted article by Subhuti Dharmananda, Ph.D., Director, Institute for Traditional Medicine, Portland, Oregon, entitled “Magnolia Bark”:

“The usual dosage recommendation for magnolia bark in decoction is 3-9. It is also powdered in formulas made in pill form, in which case the daily dose ingested is typically less than 1 gram. Since prolonged boiling of the bark may reduce the content of essential oils and biphenols, the decoction requires a higher dose than the powder that is ingested in pills.”

Magnolia bark extract side effects

One possible ‘side-effect’ use of magnolia bark is for the treatment of bad breath. In a recent study conducted with compressed-chewing gums containing magnolia extracts, it was found that the two major components of magnolia bark, magnolol and honokiol, were effective in killing bacteria responsible for bad-breath.

“In conclusion, MBE demonstrated a significant antibacterial activity against organisms responsible for oral malodor and can be incorporated in compressed mints and chewing gum for improved breath-freshening benefits.”⁵

An exciting use of magnolia bark is in the treatment of seizures and convulsions. In a recent study, it was found that magnolia bark extract had a positive effect in the reduction of induced seizures and convulsions in rats, and therefore has an antiepileptic property too.⁶

Further studies have shown magnolol to have anti-inflammatory and analgesic properties, as Eastern medicine has claimed for hundreds of years. Acetic-acid induced shock was depressed by magnolol, indomethacin and ibuprofen. Unlike other anti-inflammatories, magnolol does not increase the liver glycogen level, and has been shown to be less toxic than other modern synthetic analgesics.⁷

References

¹ **Magnolia Bark**, Subhuti Dharmananda, March 2001

² **Effect of Magnolia officinalis and Phellodendron amurense (Relora®) on cortisol and psychological mood state in moderately stressed subjects**, Shawn M Talbott, Julie A Talbott and Mike Pugh, Journal of the International Society of Sports Nutrition, 2013

³ **Magnolol stimulates steroidogenesis in rat adrenal cells**, Jian-Jung Chen et al., British Journal of Pharmacology, Nov 2000

⁴ **Effect of Magnolia officinalis and Phellodendron amurense (Relora®) on cortisol and psychological mood state in moderately stressed subjects** Shawn M Talbott, Julie A Talbott and Mike Pugh, Journal of the International Society of Sports Nutrition 2013, 10:37

⁵ **Compressed mints and chewing gum containing magnolia bark extract are effective against bacteria responsible for oral malodor**, Michael Greenberg, Philip Urnezis, Minmin Tian, Journal of Agricultural and Food Chemistry, 12/2007

⁶ **Chinese herb constituent beta-eudesmol alleviated the electroshock seizures in mice and electrographic seizures in rat hippocampal slices**. Chiou LC, Ling JY, Chang CC, Neuroscience Letters, Aug 1997