



The MOST Clinically Researched Tongkat Ali Extract

All-Round Ingredient for Healthy Ageing in Men and Women



- Patented
- Standardized
- 100% pure water-soluble extract
- Authentic Malaysian source

Patented Standardized Tongkat Ali Extract



Introduction

Tongkat Ali (*Eurycoma longifolia*) is Malaysia's wonder plant for vitality and general energy. The practice of consuming Tongkat Ali tonic is deeply embedded in tradition and has been consumed by the 'Orang Asli' aboriginal people of Malaysia to increase overall energy, virility and improve fertility.

• Hormone modulation;
testosterone **+37%** or more;
reduces cortisol **-16%**

• Increase energy
and vitality (**P<0.05**)

• Fights fatigue

• Strength, muscle size
& sports performance

• Improves
immunological age
(4 years younger) and
anti-viral properties

Health Benefits:

• **33.9%** improvement
in MENQOL (P<0.05)

• Reduces stress by
15% and improves
mood

• Improves libido
11% and sexual
potency **14%**



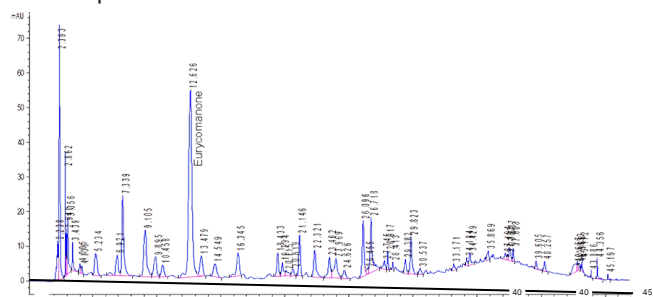
About Physta® Extract

Physta® uses authenticated Tongkat Ali Roots extracted through patented extraction technology (US 7,132,117 & EP 1,313,491) developed by the Government of Malaysia and **Massachusetts Institute of Technology, MIT**. Physta® was also used in the development of the Tongkat Ali MS Standard by the Standard and Industrial Research Institute of Malaysia (SIRIM).

Standardization

Standardization is a process where the beneficial compounds in the extract are quantified and controlled for consistency. Tongkat Ali contains numerous phenolic components, tannins, high molecular weight polysaccharides, glycoprotein and mucopolysaccharides.

Physta® is standardized to four main markers which adhere to the Malaysian Standard (MS2409:2011) for Tongkat Ali extract specification.

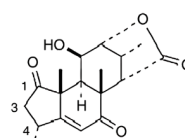


HPLC Chromatogram of *Eurycoma longifolia* Aqueous Extract @
Physta® Tongkat Ali

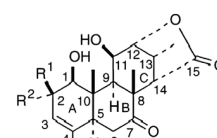
Physta® is a market-ready botanical ingredient designed for use in all-natural dietary supplements, functional foods, beverages and cosmeceutical applications.

Markers in Tongkat Ali	Physta®	Other Brands
Eurycomanone	0.8 - 1.5%	≤ 0.8 or too high (>1.5%*)
Total Protein	≥ 22	Not controlled
Total Polysaccharides	≥ 30	Not controlled
Glycosaponin	≥ 40	Not controlled

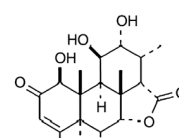
Standardization above 1.5% has not been clinically researched*



Eurycolactone



Eurycolactone E (R¹= H, R² = OH)



Eurycolactone F (R = Ac)

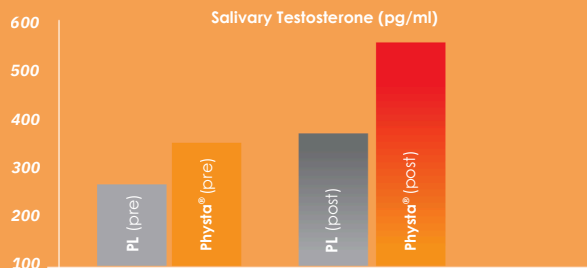
The major bioactive quassinoids (eurycomanone) in Tongkat Ali Root Extract (adapted from Bhat & Karim, 2010)

Scientifically Validated Tongkat Ali Extract

Men's Health

Testosterone | Libido | Fertility | Sperm Quality

- Total of 12 extensive clinical studies [3, 4, 6, 7, 8, 9, 10, 11, 12, 16, 17, 19]

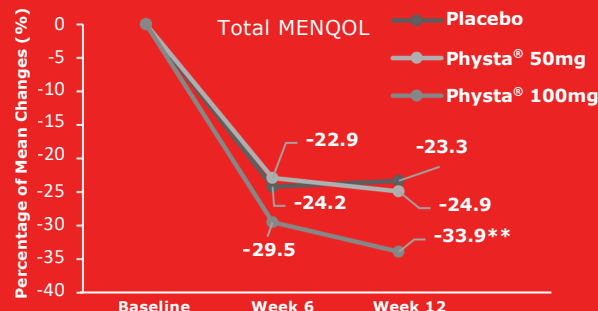


Salivary testosterone levels were significantly higher (+37% compared to placebo) following Physta® supplementation of 200mg/day for 4 weeks.

Women's Health

Menopausal QOL | Hot-flush | Hormonal Balance | Libido | Energy

Total of 5 clinical studies [5, 10, 15, 20, 21]

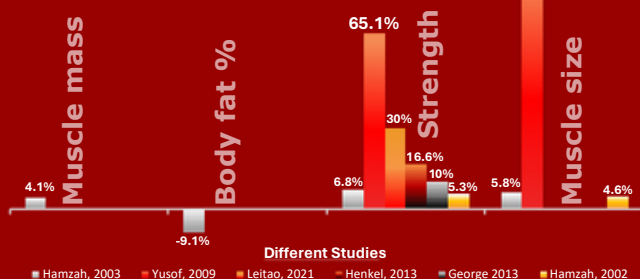


Menopausal women experienced significant improvement in Menopausal Quality of Life, energy, libido and mood compared to placebo when supplemented with 100 mg Physta® per day for 12 weeks.

Ergogenic Effects

Strength | Muscle Size | Sports & Fitness

- Total of 8 clinical studies [1, 2, 5, 8, 10, 17, 18, 19]

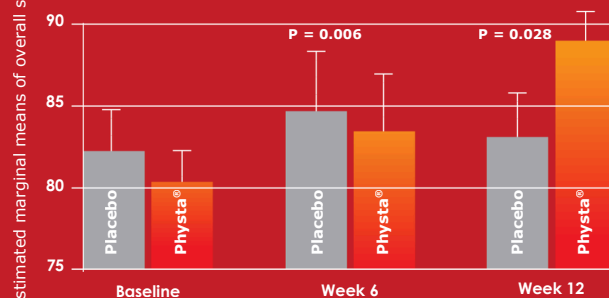


Several studies shows significant changes in muscle size, strength and changes in composition (muscle mass & body fat) when supplemented with Physta® Tongkat Ali.

Energy and Vitality

Vitality | Fatigue | Physical Function

- Total of 8 clinical studies [4, 5, 8, 14, 15, 17, 19, 21]

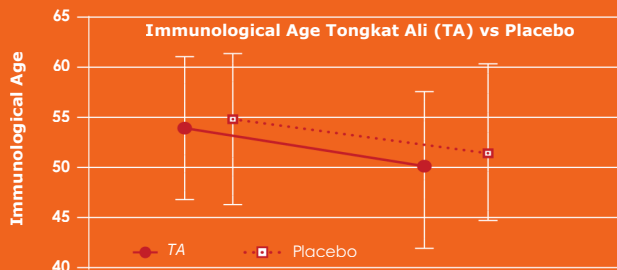


Study shows significant changes in Physta® for Physical Functioning from baseline to week 12 compared to placebo when supplemented with 200 mg/day of Physta® Tongkat Ali.

Healthy Ageing and Immunity

Immunity | Anti-viral

- Total of 2 clinical studies [13, 14]

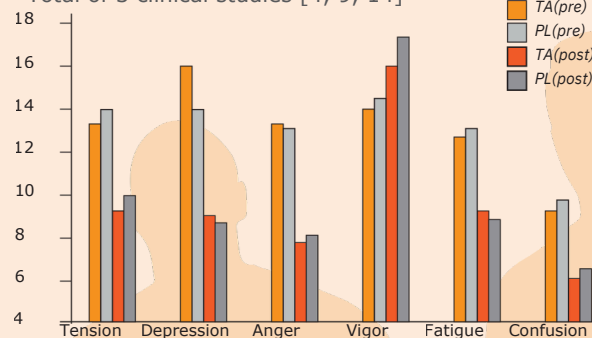


Subjects with low score of Immunological Vigor (SIV) experienced significant improvements in immunological vigor compared to placebo. Physta® enhances comprehensive immunity in both middle-aged men & women with 200mg/day in 4 weeks.

Stress and Mood

Mood | Stress

- Total of 3 clinical studies [4, 9, 14]



200mg of Physta® Tongkat Ali per day for 4 weeks significantly improved feelings of Tension (-11%). Anger (-12%) and Confusion (-15%) in moderately stressed adults.

References:

- Hamzah, S. and Yusuf, A. (2002)
- Hamzah, S. and Yusuf, A. (2003)
- Mohd. Tambi, M.I. (2005)
- Mohd. Tambi, M.I. (2009)
- Md. Yusof, S. et al. (2009)
- Mohd. Tambi, M.I. and Imran, K. (2010)
- Mohd. Tambi, M.I., Imran, M.K. and Henkel, R.R. (2011)
- Ismail, S.B. et al. (2012)
- Talbot, S.M. et al. (2013)
- Henkel, R.R. et al. (2013)
- Udani, J.K. et al. (2014)
- Chen, C.K. et al. (2014)
- George, A. et al. (2016)
- George, A., et al. (2018)
- Chinnappan, S.M. et al. (2020)
- Chan, K.Q. et al. (2021)
- Chinnappan, S.M. et al. (2021)
- Leitao, A.E. et al. (2021)
- Talbot, S. and George, A. (2024)
- Reichelt, A.G. et al. (2025)
- Muniandy, S. et al. (2025)

Why brands choose Physta®

- World Class Commercial Extraction
- Market Leader in Tongkat Ali Development and Innovation





Groves of mature size *Eurycoma longifolia* ready for harvest

THE MALAYSIAN TONGKAT ALI

While many sources of Tongkat Ali can be obtained from other South East Asian regions, the majority of the documented traditional use and extensive clinical trials conducted on the herb have always been Malaysian sourced Tongkat Ali, specifically Physta®.

Within our supply chain, a collaboration with local Aborigines (called 'Orang Asli') allows them to earn a better living by collecting wild herbs from the jungle. In the case of Tongkat Ali, the root once processed, can fetch a higher price compared to raw unprocessed root on the market. Biotropics also exercise sustainability measures through their collection practices such as replantation of Tongkat Ali seedlings.

This arrangement is a mutually beneficial ecosystem as the Orang Asli will be able to supply the raw material at a higher value and benefit from a secure and steady demand while Biotropics will be able to obtain sustainable raw materials with consistent standards.



ABOUT BIOTROPICS MALAYSIA

Blessed with an abundance of bio-resources, Malaysia has one of the world's oldest rainforests. Over generations, her people have acquired intimate knowledge of plants and their uses for health and beauty.

At Biotropics Malaysia Berhad, we are driven by our philosophy to produce superior natural health products for the international market. We achieve this by turning yesterday's traditional approach to health and well-being, into tomorrow's innovative health solutions and verifying the time honoured traditions through state-of-the-art science.

Contact Details

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EXTRACT DESCRIPTION

Botanical name	Eurycoma longifolia
Class	Magnoliopsida
Order	Sapindales
Family	Simaroubaceae
Common Name(s)	English: Long Jack, Tongkat Ali, Pasak Bumi
Country Origin	Malaysia
Shelf Life	3 years
Part used	Roots
Extraction Method	Water

EXTRACT SPECIFICATION

Test Parameter	Method/Reference	Specification
ORGANOLEPTIC		
Color	In house	Light Brown
Odour		Characteristics
Flavour		Bitter
From/texture		Fine powder
Extraneous Material		Free from foreign matter
PHYSICAL CHARACTERISTICS		
Mesh Size	In house	90% is smaller than 120 mesh
Moisture content		< 8.0%
BIOACTIVE CONTENT		
Eurycomanone	HPLC	0.8-1.5%
Total Protein	Lowry’s Method	≥ 22%
Total Polysaccharide	Anthrone Reagent	≥ 30%
Glycosaponin	Gravimetric Meter	≥ 40%
HEAVY METAL		
Lead (Pb)	[AOAC 986. 15 Section D. APHA 3120B, APHA 3112B, APHA 3125B]	< 2.0 ppm
Mercury (Hg)		< 0.05 ppm
Arsenic (As)		< 1.0 ppm
Cadmium (Cd)		< 0.3 ppm
MICROBIAL LIMIT TEST		
Total Bacteria Count	Latest version of BP	< 10,000 cfu/g
Yeast & Mould		< 100 cfu/g
Salmonella		Absent in 25g
Escherichia coli		Absent in 1g
Staphylococcus aureus		Absent in 1g
Bile tolerant gram negative bacteria		< 100 cfu/g