

# Cryptolepis



## Applications

- Microbial Support
- Healthy Inflammatory Response Support
- Blood Sugar Support

## Introduction

**NutraMedix Cryptolepis** is a hydroethanol extract made from *Cryptolepis sanguinolenta* root, which is native to Sub-Saharan Africa. *C. sanguinolenta* belongs to the Apocynaceae family.<sup>1</sup>

Latin synonyms for *C. sanguinolenta* include *Cryptolepis triangularis*, *Pergularia sanguinolenta*, and *Strophanthus radcliffei*.<sup>2</sup> Common names differ depending on the local language, and include gangamau (Hausa),<sup>3</sup> Ghana quinine (Ghana),<sup>3</sup> kadze (Ewe),<sup>3</sup> koli mekari (Bantu),<sup>3</sup> nibima (Twi),<sup>3</sup> nurubima (Guans),<sup>3</sup> paran pupa (Yoruba),<sup>3</sup> and yellow dye root.<sup>4</sup>

**Cryptolepis root** includes alkaloids, polyuronides, anthocyanosides, and triterpenes,<sup>5,6</sup> as well as saponins and glycosides.<sup>7</sup> The main alkaloid is the indoloquinoline cryptolepine, which was first isolated in 1931.<sup>3</sup> Other alkaloids include neo-cryptolepine,<sup>8</sup> isocryptepine,<sup>3</sup> cryptosanguinolentine,<sup>3</sup> cryptoquindoline,<sup>9</sup> biscryptolepine,<sup>9</sup> cryptomisine,<sup>9</sup> and cryptospirolepine.<sup>9</sup>

**Cryptolepis root** is used in African traditional health practices for various purposes: liver support in Guinea-Bissau; gastrointestinal support in Zaire and Senegal; and microbial support in Ghana and the Democratic Republic of Congo.<sup>10</sup> It is most widely used for microbial support.<sup>3,10</sup>

**NutraMedix Cryptolepis** is made at our U.S. manufacturing facility using a specialized pro-

prietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because our extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial testing, and heavy-metal testing. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

## Microbial Support

**Cryptolepis root** has an extensive history of use for comprehensive microbial support in various morphological forms.<sup>1-3,6,7,9,11-22</sup>

## Healthy Inflammatory Response Support

In vitro research shows that both the aqueous extract of **cryptolepis root** and the constituent cryptolepine may help with healthy inflammatory-response support, due to their ability to maintain COX-2,<sup>23</sup> mPGES-1,<sup>23</sup> IL-1-beta-induced p38 MAPK phosphorylation,<sup>23</sup> IL-6/STAT3 signaling,<sup>24</sup> IFN-1 signaling,<sup>25</sup> nitric oxide (NO) production,<sup>3,18,26</sup> and DNA binding of NF-kappaB already within the normal range.<sup>3,18</sup>

Other research shows cryptolepine also maintains TNF-alpha, IL-1-beta, IL-6, and PGE2 levels already within the normal range.<sup>18,23,26</sup>

## Blood Sugar Support

Cryptolepine, an alkaloid in **cryptolepis root**, may help maintain blood-glucose levels already within the normal range.<sup>18</sup> Studies for this purpose have mostly used the stem extract of *C. sanguinolenta*, though the root also contains cryptolepine. Relevant mechanisms include the maintenance of insulin, insulin sensitivity, sucrase, maltase, and alpha-glucosidase already within the normal range, as well as glucose absorption, uptake, and transport already within the normal range.<sup>27</sup>

Rat studies show that **cryptolepis root** maintains plasma glucose levels already within the normal range, attributed to insulin production, glucose absorption, and glucose transport already within the normal range.<sup>27,28</sup> Compared to a control group, rats in a cryptolepis root group also maintained total cholesterol, LDL cholesterol, and triglyceride levels already within the normal range, attributed to intestinal glucose absorption already within the normal range.<sup>27</sup>

## Safety and Cautions

Cryptolepis root is contraindicated in pregnant women, men with low sperm counts, or people with gastric ulceration.<sup>10</sup>

In animal studies, 50 mg/kg to 250 mg/kg of cryptolepis root aqueous extract, taken for up to 3 weeks, reduced fertility in both male and female rodents.<sup>3,10,29,30</sup> A rat study showed CNS-depressant effects in doses at or above 50 mg/kg.<sup>30</sup> Cryptolepis root may have additive effects with hypoglycemic medications,<sup>27</sup> and theoretically with central nervous system (CNS) depressants.

NutraMedix tinctures typically contain an average of 0.13 mg/kg dissolved solids per dose, for an average-weight adult human of approximately 150 lbs. If used four times per day, the amount of dissolved solids would be 0.52 mg/kg per day, which is far less than the lowest amount used in the referenced rodent studies.

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

\*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.

## References

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**NutraMedix.** 

**SHAKE WELL BEFORE EACH USE.**

Put 1 to 30 drops in 4 oz (120 mL) of water and wait one minute before drinking. Start with 1 drop (30 min before meals) increasing slowly up to 30 drops, 2-4 times a day or as directed by physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop. Keep out of reach of children.

**\*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.**



**CRYPTOLEPIS**  
MICROBIAL SUPPORT<sup>†</sup>

Dietary Supplement  
2 fl oz. (60 mL)

**Supplement Facts**

Serving Size 30 drops  
Servings Per Container 40

Amount Per Serving	
<i>Cryptolepis sanguinolenta</i> root extract	1.5 mL*

\*Daily Value not established

**Other ingredients:** mineral water, ethanol (20-24%)

**NutraMedix.** 

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Lot #  
Exp.