

# Microcidin



Broad-Spectrum Anti-microbial Formula | VA-109

## Key Features:

- **Coptis (Huang Lian)**, rich in **berberine**, is the king herb for detoxification in Traditional Chinese Medicine, especially during infections and inflammation.
- Contains lab-standardized high allicin content from freeze-dried garlic concentrate. Allicin is a potent natural antibiotic that does not cause dysbiosis.
- **Synergized with highly concentrated oregano & clove extracts** for broad spectrum microcidal effect in prevention and eradication of microbial infections.

## Indications:

- Small intestine bacterial or fungal overgrowth (SIBO or SIFO), Dysbiosis, Candidiasis
- *H. pylori*-induced gastritis
- Gastroenteritis, food poisoning (prevention and treatment)
- Irritable Bowel Syndrome (IBS)
- Upper Respiratory Tract Infections (URTI), Cold/Flu

## Description:

**Microcidin** contains multiple antimicrobial ingredients with different mechanisms to inhibit and destroy pathogenic bacteria, fungi and parasites.

### **Coptis chinensis (Huang Lian) Extract**

*Coptis chinensis* (Huang Lian) is the most commonly used herbs for detoxification in Traditional Chinese Medicine (TCM). **Coptis has similar properties as Goldenseal, but it is much richer in berberine content (4-7%) than its counterpart (1.5-4%).**

Like many other berberine-containing herbs, Coptis is largely used to treat various infections, such as vaginal bacteriosis, fungal infections, acute gastroenteritis, cholera, bacterial dysentery, and SIBO. It has been shown to exert antimicrobial activity on a number of common pathogens, such as *E. coli*, *K. pneumonia*, *Salmonella typhi*, *Enterobacteria*, *Vibrio cholera*, and *Candida albicans*.<sup>1,2</sup>

Other than berberine, Coptis also contains other major therapeutic constituents like **palmitine**, coptisine, and jateorrhizine.<sup>3</sup> Research has shown that **palmitine** from Coptis carries better potential in inhibitory activity against *H. pylori* than berberine.<sup>4</sup> It also protects against gastric damage from HCl and promotes healing of ulcers. The study suggests that **Coptis is the more effective agent**

## Quantity: 84 Vegetarian Capsules

### Ingredients (per 3 capsules):

Coptis Extract (*Coptis chinensis*) (12:1) (rhizome).....180 mg  
(20% berberine) (equivalent to 2160 mg dried herb)  
Garlic (*Allium sativum*) (bulb).....720 mg  
(20,000 mcg alliin/g) (10,000 mcg allicin/g)  
Oregano Extract (*Origanum vulgare*) (23:1) (leaf).....120 mg  
(30% volatile oil) (equivalent to 2760 mg dried herb)  
Clove Extract (*Syzygium aromaticum*) (3:1).....150 mg  
(flower) (30% volatile oil) (equivalent to 450 mg dried herb)

**Non-medicinal Ingredients:** magnesium caprylate, undecylenic acid, silicon dioxide, L-Leucine, pullulan/ hypromellose (capsule)

**Suggested Use:** Adults - Take 1 capsule with meal, 2-3 times per day, or as directed by your health care practitioner.

**than berberine in treating *H. pylori*-induced gastritis/gastric ulcer.<sup>4</sup>**

In TCM paradigm, Coptis provides a wider range of applications than berberine isolate. It is bitter and very cooling in nature and used to clear heat/fire, dry damp, descend Yang and eliminate toxins (i.e. pathogens). From the western medical perspective, “heat/fire” can be seen as inflammation in the body, whether it is caused by environmental triggers or infections.

Coptis enters the Heart, Liver, Stomach, and the Large Intestine meridians to address infection and inflammation associated with these organ systems. Therefore, in addition to its antimicrobial effect, it also exerts hepato-protective, hypotensive, anti-diabetic, **anti-inflammatory (reducing gut hyper-permeability)**, anti-atherosclerotic, styptic/vulnerary, uterine-tonic, and anti-diarrheal actions.

### **Garlic Concentrate (Freeze-Dry)**

Garlic is one of the most renowned antimicrobial herbs. It has also been shown to exert anti-atherosclerotic and serum-lipid-lowering actions.



Garlic's medicinal effects mainly came from its sulfur-containing constituents including alliin (allicin) and ajoene. Allicin is the most potent antimicrobial constituent of all. It is derived from alliin via the action of alliinase when garlic is crushed or damaged. However, allicin is a very unstable molecule, degrading at 23°C within hours upon exposure to air. **Utilizing freeze-dry process can preserve alliin and alliinase activity, allowing the two to be re-activated upon ingestion.**

**Ajoene** is another potent, but more stable constituent. It has been shown to also exert anti-bacterial actions against pathogenic microbes, such as *S. aureus*, *E. coli*, *Klebsiella pneumonia*, and *Candida albicans*.<sup>7</sup>

### Oregano Extract

The oregano extract has been shown to exert cytotoxic, antioxidant, and antibacterial activities, which mostly attributed to **carvacrol and thymol**.<sup>8</sup> It has been shown bacteriocidal and bacteriostatic to some clinically significant pathogens such as *Pseudomonas aeruginosa*, *E. coli*, *Acinetobacter baumannii*, *Candida albicans* and *S. aureus* (including MRSA).

### Clove Extract

Clove has been traditionally used to treat fungal infections of skin, mouth, urinary, and vaginal tracts. *Candida albicans* with matured biofilm formation showed > 1024 times increased resistance to antifungal drugs, such as fluconazole. **Clove has demonstrated promising anti-biofilm activity against Candida albicans.**<sup>9</sup>

### Caution:

Do not use if you are pregnant or breastfeeding; or if you have hypersensitivity to herbs in Lamiaceae family. Consult a health care practitioner if symptoms persist or worsen. Consult a health care practitioner prior to use if you have diabetes; or if you are taking blood thinners or protease inhibitors. Hypersensitivity (e.g. allergy) has been known to occur; in which case discontinue use.

### Reference:

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