Berbemycin™

Supports Healthy Microbial Balance*

Available in 120 capsules

Clinical Applications

- Supports Healthy Microbial Activity*
- Supports Gastrointestinal Health*

Berbemycin™ *features berberine, a plant alkaloid broadly used in traditional Ayurvedic and Chinese herbal practices that has exhibited clinical benefits for supporting healthy microbial activity in the gastrointestinal tract. The complementary ingredients Oregon grape root, which naturally contains concentrated berberine, and grapefruit seed and uva ursi extracts also influence microbial activity.**

Discussion

Berberine is a plant alkaloid derived from several different plant species used in traditional Chinese medicine. Modern clinical use as well as in vivo, in vitro, and animal research studies have suggested a role for berberine for a variety of therapeutic applications, including its positive impact on gastrointestinal (GI) health and microbial balance.*[1]

One of the most time-honored uses of berberine is as a remedy for loose stools. Although the exact mechanism isn't clear, the beneficial use of berberine for this purpose has been attributed in animal and in vitro studies to its antisecretory effect and its support of healthy microbial activity in the GI tract.[2-4] Preliminary human clinical studies in India in the 1960s followed by additional research in the 1980s have helped establish an evidence base for these effects.[2,3] In a randomized controlled trial in subjects (N = 165) with watery stools thought to be caused by certain strains of bacteria, a single 400 mg dose of berberine resulted in significantly reducing stool volume in the test group in three consecutive eight-hour periods following treatment. The authors concluded that berberine was an effective antisecretory agent for diarrhea caused by enterotoxigenic bacteria.*[5]

Increasing evidence indicates that gut microbiota are crucial mediators that regulate the pharmacokinetic and biological effects of berberine. When exposed to certain bacterial, fungal, and viral strains in vitro, berberine and its derivatives have demonstrated the ability to inhibit microbial synthesis.[3,4] Berberine also induces compositional alterations in gut microbiota and regulates gut microbe-dependent metabolites, factors that contribute to its biological effects on lipid and glucose metabolism.[1,4] Additionally, gut microbiota influence the bioavailability of berberine and are necessary for its conversion to dihydroberberine, the intestine-absorbable form.*[6,7]

Oregon Grape Root contains a range of isoquinoline alkaloids, including berberine. Once known as Indian barberry, Oregon grape was traditionally used by North American tribal communities for liver, gall bladder, kidney, and GI ailments as well as for a general health tonic. Studies support its antimicrobial qualities, its use in regulating bile acid metabolism, and its contribution to epithelial regeneration by increasing mucosal secretions, which are critical for GI microflora proliferation, intestinal absorption, and intestinal motility.*[8]

Grapefruit Seed Extract (GSE) contains polyphenols that are converted into a diverse class of quaternary ammonium compounds and used by the food processing and agricultural industries for their antimicrobial effect. Additionally, GSE is used as a natural remedy for GI issues linked to microbial imbalance, but it has been hypothesized that this clinically observed benefit may be attributable to the preservatives in the extract.*[9]

In vitro research has shown that GSE has an inhibitory effect on various bacterial biotypes, yeasts, and molds.[10,11] In vivo research is limited, but a small trial in patients (n = 15) with atopic eczema was designed to assess the effect of GSE extract on several bacterial and yeast strains. It demonstrated that oral administration of 150 mg of GSE three times per day resulted in varying degrees of inhibition of some fungal and bacterial species, and an improvement in GI symptoms was noted in all patients.[11] The above findings indicate antimicrobial potential for non-adulterated GSE; however, randomized, double-blind, placebo-controlled human trials with large subject groups are needed to further substantiate GSE for this use.*

Uva Ursi (Bearberry Leaf) is a traditionally used remedy for urinary tract infections. The constituent in uva ursi that appears to have an antimicrobial effect is the phenolic glycoside arbutin, which undergoes hepatic conjugation to form hydroquinone (HQ).[12] A review of published and unpublished human and experimental studies summarized the evidence relating to the safety and efficacy of uva ursi extract in supporting lower urinary tract health. Pharmacokinetic data suggest that the intake of 420 mg of HQ (calculated as anhydrous arbutin) is a safe, therapeutic option.*[13]

XYMOGEN's **Berbemycin** contains 250 mg of berberine hydrochloride (HCl) per serving complemented by Oregon grape root, GSE, and uva ursi extract. This multidimensional formula is designed to provide support for healthy microbial activity while also promoting GI health.*

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

Berbemycin™ Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Oregon Grape (*Mahonia aquifolium*)(roots)	390 mg	**
Grapefruit 5:1 Extract (*Citrus × paradisi*)(seed)	350 mg	**
Berberine HCl	250 mg	**
Uva Ursi Extract (*Arctostaphylos uva-ursi*)(leaves)(16% arbutin)	180 mg	**

** Daily Value not established.

Other Ingredients: Capsule (hypromellose and water), hydroxypropyl cellulose, silica, and ascorbyl palmitate.

DIRECTIONS: Take two capsules once or twice daily, or as directed by your healthcare professional.

Consult your healthcare professional before use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

FORMULATED TO EXCLUDE: Wheat, gluten, yeast, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, sesame, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

VEGETARIAN CAPS

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Additional references available upon request

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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