



Quality is our Passion  
Passion Flower (*Passiflora incarnata*)

MEDIHERB®

# Berberine Active

M1650

## Berberine Active: Supporting Gut & Liver Health\*

*Phellodendron amurense*, commonly known as the amur cork tree, is a deciduous tree native to a number of Asian countries and can grow to a height of 30 or 40 feet. It has a whitish outer bark and an inner yellow one. The inner, yellow bark has a very bitter taste.<sup>1,2</sup> *Phellodendron* bark contains the important constituent: berberine.<sup>3</sup>

*Phellodendron* bark has been one of the major sources of yellow dye used for centuries in Asia to dye textiles and paper, and had a reputation for protecting paper from insect attack.<sup>1,4</sup> Berberine is known to be responsible for the color of the dye, but other alkaloids in *Phellodendron* bark, such as palmatine are now known to contribute.<sup>1</sup>

*Phellodendron* bark has been used traditionally to support gut and liver health.<sup>3,5\*</sup>

## How Berberine Active Keeps You Healthy

### Supports a healthy bowel environment

*Phellodendron* bark has been used traditionally to cleanse the lower gastrointestinal tract.<sup>3,5</sup> Cleansing and promoting health in the lower gastrointestinal tract encourages proper intestinal flora.\*

The intestinal environment naturally contains healthy bacteria and unhealthy bacteria.<sup>6</sup> If there is breakdown in the balance between these intestinal bacteria, the health of the individual may suffer. For example, fermentation taking place in the colon can generate gas. This can contribute to flatulence (or "wind"). A healthy bowel environment also ensures that the body is not exposed to toxins produced by unhealthy intestinal bacteria.<sup>7</sup>

Major functions attributed to a healthy intestinal environment include:<sup>7</sup>

- activities that result in the release of absorbable nutrients and substances that can be used for energy
- protection of the healthy balance of bacteria in the host
- support of local immune function and systemic immune function via the immune-related tissues of the intestine such as the intestinal lymph tissue

Regularity of bowel function is something that *Phellodendron* bark is known to support traditionally,<sup>3,5</sup> and berberine has been found to improve quality of life and improve bowel regularity in those who took a daily dose of 400 mg/day over many weeks.<sup>8\*</sup>

### Supports antioxidant activity

Free radicals are highly reactive substances created in the body that may affect cells by interacting with proteins, lipids and DNA and potentially causing protein oxidation, lipid peroxidation and DNA damage. Antioxidants help protect cells from the damaging effects of excessive free radicals.<sup>9</sup> The main antioxidant enzymes that are part of the body's antioxidant defense system include superoxide dismutase (SOD), catalase, and glutathione peroxidase (GPx). These enzymes act together in the body

### Supplement Facts

Serving size:	1 Tablet	
Servings per container:	60	
	Amount per Serving	%DV
Phellodendron 20:1 extract	440 mg	†
from <i>Phellodendron amurense</i> stem bark 8.8 g		
Containing berberine 200mg		

† Daily Value (DV) not established.

**Other ingredients:** Microcrystalline cellulose, sodium starch glycolate, croscarmellose sodium, hypromellose, magnesium stearate, dibasic calcium phosphate dihydrate and silicon dioxide.

**Caution:** Not to be used during pregnancy and lactation unless otherwise directed by a qualified health care professional.

**Product No**  
M1650

**Content**  
60 Tablets

### Suggested Use

1 tablet 2-4 times daily, or as directed.



Berberine Active M1650



**Professor Kerry Bone**  
MediHerb Co-Founder and  
Director of Research and Development

### A Phytotherapist's Passion

"Philosopher and teacher Rudolf Steiner once said that, for every human illness, somewhere in the world there exists a plant which is the cure. I believe that there is a healing potential locked inside plants which is integral with their evolution, just as it is part of human evolution to learn to tap this wonderful gift of Nature."

and altered activity of one enzyme without compensatory changes in others which led to lipid peroxidation.<sup>10</sup> There are numerous measures of oxidative stress in the body, for example, malondialdehyde (MDA, the oxidized product of lipids) and 8-hydroxydeoxyguanosine (8-OHdG, the oxidized product of DNA).<sup>11</sup>

Phellodendron bark containing sufficient amounts of berberine may support antioxidant activity. It may do this by enhancing the normal production of some of the body's antioxidants such as SOD. A clinical trial found that berberine increased the levels of SOD and GPx in those that took it at a daily dose of 300 mg. In addition, markers of oxidative stress (MDA, 8-OHdG) were decreased. Those that did not take berberine did not experience these effects.<sup>12\*</sup>

## Supports healthy liver function

Phellodendron bark has been used traditionally to support healthy liver function.<sup>3,5</sup> One of the ways it does this may be related to antioxidant activity. Studies in animals have shown that oral doses of berberine increased antioxidant defenses in the liver and supported normal levels of liver enzymes.<sup>13,14\*</sup>

## Promotes vitality

Phellodendron bark is regarded traditionally as a tonic.<sup>2,15</sup> A tonic is popularly thought of as something that makes you feel better, stronger or healthier. Natural clinicians use general tonics to improve the tone, vigor and function of the whole body.<sup>16\*</sup>

# What Makes Berberine Outstanding

## Quality Manufacture & Analytical Testing

- Manufactured in Australia to the high standards of international pharmaceutical Good Manufacturing Practice
- Raw material and finished product are subjected to tough quality standards, for example, the quantity of berberine in Phellodendron bark is initially measured using high-performance liquid chromatography and regularly monitored

## References

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- <sup>5</sup> Bensky D, Clavey S, Stoger E. *Chinese Herbal Medicine: Materia Medica*, 3rd Edn. Eastland Press, Seattle, 2004.
- <sup>6</sup> Losada MA, Olleros T. *Nutr Res* 2002; **22**(1-2): 71-84
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- <sup>8</sup> Chen C, Tao C, Liu Z et al. *Phytother Res* 2015; **29**(11): 1822-1827
- <sup>9</sup> Peng C, Wang X, Chen J et al. *Biomed Res Int* 2014; **2014**: 831841
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- <sup>12</sup> Dai P, Wang J, Lin L et al. *Exp Ther Med* 2015; **10**(3): 869-876
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- <sup>14</sup> Mahmoud AM, Hozayen WG, Ramadan SM. *Biomed Pharmacother* 2017; **94**: 280-291
- <sup>15</sup> Yen KY. *The Illustrated Chinese Materia Medica: Crude Drugs*. Southern Materials Center Inc, Taipei, 1980.
- <sup>16</sup> Bone K. *Clinical Guide to Blending Liquid Herbs. Herbal Formulations for the Individual Patient*. Churchill Livingstone, USA, 2003.



## Quality is our Passion

MediHerb products are developed by experts and leaders in the field of herbal therapy, using scientific evidence and hundreds of years of traditional knowledge.

Kerry Bone and over 20 health care professionals work within MediHerb while still managing their own clinical practices, plus we consult with an advisory board of health care professionals from around the world.

Our products are made using only the highest quality ingredients that are extensively tested for purity and potency. The MediHerb manufacturing plant operates to a strictly regulated pharmaceutical standard and is regularly audited by the Therapeutic Goods Administration (similar to the FDA), the same body that audits conventional pharmaceutical manufacturing facilities. The comprehensive regulations in Australia mean that you receive a safe and effective product that has been manufactured to pharmaceutical standards.

We know from our experience as health care professionals that the quality of a product you take makes a huge difference to the health outcome you experience. We dedicate ourselves to researching and making the best possible products to deliver health solutions that work.



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**\*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.**

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