

## APPLICATIONS

- Microbial Support



## INTRODUCTION

Baikal skullcap (*Scutellaria baicalensis*) belongs to the Lamiaceae family and is also known as *Scutellaria micrantha*.<sup>1</sup> Baikal skullcap root has been used in traditional Chinese health practices for centuries to clear heat, with the first known written mention dating back to the *Shen Nong Ben Cao Jing* in the second century C.E. In China, Baikal skullcap is known as *huang qin*.<sup>2</sup>

Baikal skullcap contains the flavonoids baicalein, wogonin, and oroxylin A, as well as the flavonoid glycosides baicalin and wogonoside.<sup>1,3</sup> It also contains terpenoids, polysaccharides, and volatile oils.<sup>4</sup>

NutraMedix's Baikal skullcap root hydroethanolic extract is made at our U.S. manufacturing facility using a specialized proprietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because NutraMedix's 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 (cGMPs), as do our suppliers.

## MICROBIAL AND OTHER SUPPORT

Baikal skullcap root (*S. baicalensis*) and its constituents may help with a diverse range of microbial support.<sup>\*5-9</sup>

According to rat studies, the constituent baicalein may help maintain intestinal short chain-fatty acids as well as healthy microbiota already within the normal range.<sup>\*10</sup>

In vitro studies suggest that Baikal skullcap root may help with antioxidant support as quantified by hydroxyl radical, alkyl radical, and DPPH (2,2-diphenyl-1-picrylhydrazyl) radical assays.<sup>\*5</sup> In vitro studies also suggest that Baikal skullcap root may help with healthy inflammatory response-support by maintaining NF-kappaB signaling via the MAPK pathway already within the normal range.<sup>\*11-13</sup>

Baikal skullcap root may have potential benefits for cardiovascular health and may help maintain lipid levels already within the normal range.<sup>\*8</sup> In vivo, rats fed a high-fat diet were assigned to Baikal skullcap root extract or a control group. The addition of Baikal skullcap root extract helped support atherogenic index and triglyceride and total cholesterol levels, already within the normal range.<sup>\*14</sup>

## SAFETY AND CAUTIONS

Baikal skullcap root (*S. baicalensis*) is generally well tolerated, though gastrointestinal effects and itching are possible. Serious adverse effects are rare.

While there have been cases of hepatotoxicity with combination products containing Baikal skullcap root, most of these were with a specific brand of *S. baicalensis* and *Areca catechu* combination.<sup>1</sup>

As of 2020, there had been three reported cases worldwide of contact dermatitis from topical application of Baikal skullcap root.<sup>15</sup>

Baikal skullcap root may increase levels of medications metabolized by CYP1A2 or CYP2C19 enzymes and may have additive effects with hypoglycemic drugs.<sup>1</sup> In a study with healthy volunteers, Baikal skullcap root

decreased CYP2C9 and increased CYP2E1 enzymes, which may decrease the metabolism of drugs that use those pathways.<sup>16</sup>

Theoretically, Baikal skullcap root may increase the effects of anticoagulants and decrease the effects of statins.<sup>1,17</sup>

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.

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# BAIKAL SKULLCAP

## MICROBIAL SUPPORT †

### Dietary Supplement

2 fl oz. (60 mL)

### Supplement Facts

Serving Size 30 drops	
Servings Per Container 40	
Amount Per Serving	
Baikal Skullcap root extract	1.5 mL*
*Daily Value not established	

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

### NutraMedix

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