

# Samento®

## Applications

- |   |                         |
|---|-------------------------|
| • Immune Support                        | • Neurological Support  |
| • Healthy Inflammatory Response Support | • Blood Glucose Support |
| • Cardiovascular Support                | • Antioxidant Support   |
|   | • Microbial Support     |



## Introduction

**NutraMedix Samento®** is a hydro-ethanol extract from a rare, pentacyclic chemotype of **cat's claw bark** (*Uncaria tomentosa*). The proprietary hydroethanolic extraction and enhancement process maximizes the bioavailability of phenolics, alkaloids, and other beneficial constituents. Cat's claw belongs to the Rubiaceae family and is traditionally used for health promotion by indigenous tribes of the Peruvian Amazon. Ongoing research continues to validate its health-supporting effects.\*

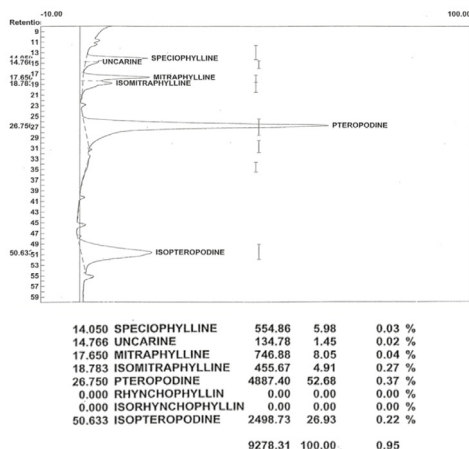
**Cat's claw** exists in two chemotypes, one of which contains more tetracyclic oxindole alkaloids (TOAs) and the other of which contains more pentacyclic oxindole alkaloids (POAs).<sup>1</sup> **Samento cat's claw** is made from the bark of this rare pentacyclic chemotype. Samento is verified by independent 3<sup>rd</sup> party HPLC testing to be free of TOAs, with levels in trace amounts to undetectable.<sup>2</sup> Samento not only meets but exceeds the standards of the U.S. Pharmacopoeia (USP 42) for *U. tomentosa*, which requires no less than 0.3% of POAs and no more than 0.05% TOAs.<sup>3</sup> Cat's claw includes other active constituents in the form of esters, glycosides, organic acids, procyanidins, sterols, and triterpenes.<sup>4</sup>

**NutraMedix Samento** 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 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. **Samento is currently the only commercially available, naturally occurring TOA-free cat's claw (*U. tomentosa*).**

## Why Pentacyclic Chemotype Matters (POAs vs. TOAs)

Regular cat's claw bark (*U. tomentosa*) most commonly contains both pentacyclic oxindole alkaloids (POAs) and tetracyclic oxindole alkaloids (TOAs). The POAs include speciophylline, uncarine F, mitraphylline, isomitraphylline, pteropodine, and isopteropodine while the TOAs include rhynchophylline and isorhynchophylline.<sup>5</sup> With the majority of cat's claw, TOAs block the effects of POAs, negating their support of immune health.<sup>5,6</sup> **Samento cat's claw** uses the preferred pentacyclic chemotype that is rich in POAs, with TOAs in only trace amounts or undetectable.



## Immune System Support

**Samento cat's claw** (*U. tomentosa*; pentacyclic chemotype) may help maintain a healthy immune response and support immune system homeostasis.<sup>5,6</sup> Research suggests that POAs may help maintain lymphocyte-proliferation-regulating factor levels,<sup>5</sup> CD4<sup>+</sup>CD25<sup>+</sup>Foxp3<sup>+</sup> levels,<sup>7</sup> and Th2 levels already within the normal range.<sup>7</sup> It should be noted that TOAs inhibit the effect of POAs on lymphocyte-proliferation-regulating factor in a dose-dependent manner, and TOA-free cat's claw is required for adequate immune support.<sup>4</sup>

The specific POA mitraphylline may help maintain neutrophil levels already within the normal range as well as levels of Th1, Th2 and Th17 already within the normal range.<sup>8,9</sup> Mitraphylline may also help support healthy apoptosis.<sup>10</sup>

## Healthy Inflammatory Response Support

**Samento cat's claw** (*U. tomentosa*; pentacyclic chemotype) may help maintain a healthy inflammatory response.<sup>11,12</sup> Cat's claw may help support NF-kappa B levels already within the normal range in a dose-dependent manner,<sup>13,14</sup> supporting both TNF-alpha and IL-1-beta within the normal range.<sup>14</sup> The most prevalent POA alkaloid, mitraphylline, may help maintain levels

of IL-1alpha, IL-2, IL-4, IL-6, IL-8, and IL-17 already within the normal ranges,<sup>15-18</sup> in addition to maintaining healthy function of the MAP kinase pathway.<sup>14,18</sup>

## Other Support

### Cardiovascular Support

**Cat's claw** (*U. tomentosa*) may help maintain blood pressure already within the normal range, attributed to the constituent hirsutine.<sup>19</sup>

### Neurological Support

**Cat's claw** (*U. tomentosa*) may help support neurological health and help maintain healthy neurocognitive function,<sup>20,21</sup> potentially due to the POA mitraphylline.<sup>22</sup>

### Blood Glucose and Metabolic Support

**Cat's claw** (*U. tomentosa*) may help support insulin sensitivity and maintain blood glucose levels already within the normal range.<sup>7,23</sup>

### Antioxidant Support

**Cat's claw** (*U. tomentosa*) may give antioxidant support, helping maintain levels of oxidative stress already within the normal range,<sup>24</sup> attributed to the constituent flavan-3-ol monomers, alkaloids, and polyphenols.<sup>4</sup>

### Microbial Support

**Cat's claw** (*U. tomentosa*) may assist with a broad range of microbial support.<sup>25-27</sup>

## Safety and Cautions



**Cat's claw** (*U. tomentosa*) is generally well tolerated. Gastrointestinal effects such as nausea, vomiting, constipation, or diarrhea have been reported.<sup>28</sup> Cat's claw should be avoided in those taking immunosuppressants, as it may interfere with immunosuppressant therapy.<sup>28</sup> Cat's claw may inhibit P450 CYP3A4 enzymes and therefore may slow the metabolism of drugs metabolized by CYP3A4.<sup>28</sup> *U. tomentosa* may have additive effects with anticoagulants or hypotensive drugs, generally attributed to the TOAs rhynchophylline and isorhynchophylline.<sup>29,30,31</sup> **As a reminder, Samento cat's claw is TOA-free, with levels in trace amounts or undetectable.**

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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**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 per day or as directed by your physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop. Keep out of reach of children.

†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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**SAMENTO®**

**IMMUNE/MICROBIAL  
SUPPORT †**

**Dietary Supplement**

**1 fl oz. (30mL)**

**Supplement Facts**

Serving Size 30 drops  
Servings Per Container 20

Amount Per Serving	
<i>Uncaria tomentosa</i> (Pentacyclic chemotype) bark extract	1.5 mL*

\*Daily Value not established

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

**NutraMedix**  
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561-745-2917

Lot #  
Exp.

V324173