



## Endohealium™

### Product Information



Endohealium™ combines phytotherapeutic extracts of **Citrus reticulata (tangerine)**, **Punica granatum (pomegranate)**, **Pterocarpus marsupium**, **Petroselinum crispum (parsley)**, **Genista tinctoria (dyer's broom)**, **Polygonum cuspidatum (Japanese knotweed)**, **Curcuma longa (turmeric)**, **Hibiscus sabdariffa (roselle)**, and **Cinnamomum verum (Ceylon cinnamon)**. This formula is designed to help support healthy endothelial function, circulation, and vascular resiliency.

Endothelial cells line blood-vessel interiors and form a semipermeable barrier that helps regulate fluid, protein, and blood-cell movement into tissues and maintain an antithrombotic, anti-inflammatory microvascular environment.

Endothelial injury and barrier dysfunction increase vascular permeability, permit inflammatory-cell transmigration and red-cell extravasation, and can lead to tissue edema and microthrombi.

Barrier dysfunction is an early contributor to several vascular conditions (e.g., atherosclerosis, in-stent restenosis), studies highlight endothelial leakage as an important factor influencing vascular outcomes.

**Citrus reticulata (tangerine)** — A common culinary fruit long used in East Asian herbal traditions to support digestion and circulation. Rich in flavonoids (hesperidin/hesperetin), which in laboratory and some clinical studies act as antioxidants, support nitric-oxide signaling, and show vasculoprotective effects.

**Punica granatum (pomegranate)** — Historically eaten and medicinally used across the Mediterranean and Middle East for vitality and heart health. Pomegranate arils and peel contain punicalagins and ellagitannins that exert antioxidant and anti-inflammatory actions with reported favorable effects on lipids, blood-pressure markers, and oxidative stress (preclinical + limited clinical).

**Luteolinidin (flavonoid)** — A plant-derived flavonoid found in certain herbs and pigments like Sorghum; traditionally not a single-herb remedy but a constituent type. In isolated-tissue and cell studies it can inhibit CD38 and help preserve NAD(P)(H) pools, correlating with improved metabolic markers in experimental heart preparations.

**Pterocarpus marsupium** — A tropical tree used in Ayurveda and South Asian folk medicine for metabolic support and “sugar control.” Its heartwood contains pterostilbene, epicatechin, and related stilbenoids; preclinical work shows antioxidant and Nrf2-linked activity that may support glucose metabolism and pancreatic resilience.

**Petroselinum crispum (parsley)** — A widely used culinary herb with a long folk-medicine history for digestion and general tonic effects. Parsley supplies apigenin and other flavonoids; experimental studies report CD38 inhibition and effects on NAD<sup>+</sup>-related metabolism and metabolic markers, though human evidence is limited (preclinical).

**Genista tinctoria (dyer's broom)** — Traditionally used as a dye plant and herbal remedy in Europe; contains isoflavonoids and flavonoids. Laboratory studies show modulation of kinase and signaling enzymes, antioxidant activity, and effects on cell proliferation and angiogenesis pathways.

**Polygonum cuspidatum (Japanese knotweed)** — Used in traditional East Asian medicine and a concentrated natural source of resveratrol. Resveratrol and related stilbenes have been studied for anti-inflammatory and NF- $\kappa$ B-modulating actions in cells. (preclinical + limited clinical).

**Curcuma longa (turmeric)** — A cornerstone of Ayurvedic and Southeast Asian traditional medicine for centuries. Curcuminoids (curcumin) show antioxidant, anti-inflammatory, and multiple cell-signaling effects in lab and clinical studies.

# Intelligent Remedies, Inc.

P.O. Box 448, Puunene, HI 96784

[www.intelligentremedies.com](http://www.intelligentremedies.com)



**Hibiscus sabdariffa**, is known for its antibacterial, antifungal and anti-parasitic actions. It also significantly lowered serum cholesterol. Another scientific study also confirmed that ethanolic extract from the leaves of *Hibiscus sabdariffa* significantly exhibit hypo-lipidemic effect. The extract was also studied among subjects, some with and some without metabolic syndrome. Subjects with metabolic syndrome receiving the ethanolic extract had significantly reduced glucose, total cholesterol and low-density lipoprotein, while increasing high density lipoprotein.

***Cinnamomum verum***, Cinnamon health benefits are attributed to its content of a few specific types of antioxidants, including polyphenols, phenolic acid and flavonoids.

**Endohealium** is uniquely extracted from select organic herbs, organic cane alcohol and deep ocean mineral water, as the extraction solvent. Utilizing advanced all-glass apparatus **Endohealium's** ingredients undergo hours of reflux extraction that applies heat and hydroalcohol to enhance the bioavailability of the resultant extraction.

- **Highly bio-available due to heat and hydro-alcohol reflux extraction**
- **Organic**, Non-GMO, Gluten free
- Extracted with **Maui-grown organic sugarcane alcohol** and deep ocean mineral water.

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.



# Intelligent Remedies, Inc.

P.O. Box 448, Puunene, HI 96784

[www.intelligentremedies.com](http://www.intelligentremedies.com)



Below you will find research and takeaways from them that we wanted to share with you, they are for educational purposes only.

Huang X., Dai Z., Cai L., et al., 2016 — "Endothelial p110 $\gamma$  PI3K Mediates Endothelial Regeneration and Vascular Repair Following Inflammatory Vascular Injury." *Circulation*.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5378665/>

**Study type:** Preclinical — genetic and pharmacologic mouse models with LPS/sepsis-induced vascular injury.

**Key results:** Endothelial p110 $\gamma$  (PI3K $\gamma$ ) activation was required for induction of the reparative transcription factor FoxM1, endothelial regeneration, and normalization of vascular permeability after inflammatory injury; Pik3cg $^{-/-}$  mice or pharmacologic p110 $\gamma$  inhibition showed persistent inflammation and defective vascular repair. Restoring p110 $\gamma$  or FoxM1 expression rescued repair deficits.

**Takeaway (qualified):** Preclinical mechanistic evidence identifies the p110 $\gamma$ →FoxM1 pathway as a critical mediator of endothelial regeneration after inflammatory injury — a hypothesis-generating target for future translational study, not a clinical therapy.

Ogura Y., Kitada M., Xu J., et al., 2020 — "CD38 inhibition by apigenin ameliorates mitochondrial oxidative stress through restoration of the intracellular NAD $^{+}$ /NADH ratio and Sirt3 activity in renal tubular cells in diabetic rats." *Aging* (Albany NY). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7321691/>

**Study type:** Preclinical — diabetic rat model and in vitro high-glucose cell studies.

**Key results:** Apigenin inhibited CD38 expression/activity, raised intracellular NAD $^{+}$ /NADH ratio, increased Sirt3 activity, reduced mitochondrial oxidative stress markers, and ameliorated renal tubular injury and fibrosis markers in diabetic rats; CD38 knockdown produced similar cellular effects in vitro.

**Takeaway (qualified):** In diabetic kidney models, apigenin's CD38 inhibition restored NAD $^{+}$  metabolism and mitochondrial antioxidant defenses with protective effects; findings are preclinical and suggest mechanisms worth further translational research.

