

*Scientifically Tested Efficacy
in Selective
Kinase Modulation*



Kaprex® & Kaprex® AI

Selective Kinase Response Modulators (SKRMs)

*Advanced Formulas for Joint Relief
and Balanced Immune Function♦*

Kaprex: Worry-Free Joint Support

- ▶ Features tetrahydro-iso-alpha acids (THIAA)—constituents from hops—that provide a safer option for effective joint relief♦
- ▶ Modulates kinase signaling and the formation of certain substances associated with minor pain♦
- ▶ Provides rosemary extract and oleanolic acid—suggested by research to modulate eicosanoid pathways♦
- ▶ Clinical testing suggests a high level of predicted cardiovascular, gastric, renal, and liver safety♦

Kaprex AI: Healthy Immune Balance

- ▶ Modulates kinase signaling in cells associated with a healthy immune response♦
- ▶ Replenishes healthy levels of selenium and zinc—minerals shown to modulate key immune pathways♦
- ▶ Provides vitamin D₃—a bioactive form of vitamin D—to modulate immune balance♦
- ▶ High level of predicted safety suggested by clinical testing♦

A safer approach to effective joint relief and immune system balance.♦

Scientifically Engineered and Tested

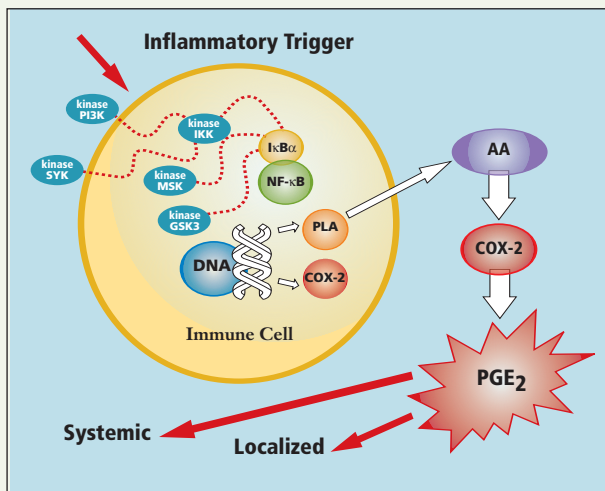
Efficacy and Predicted Safety

Your patients can now experience the power of THIAA in joint relief and balanced immune function—supported by human clinical trials and backed by cutting-edge research and development.♦

Why Kinases are Important

Kinases are enzymes that translate dietary signals to positively or negatively influence numerous aspects of health. They function to chemically modify other proteins and regulate the majority of cellular pathways, especially those involved in the transmission of signals within the cell. These enzymes also help regulate eicosanoids, cytokines, reactive oxygen species, and other mediators that may negatively impact the body both locally and systemically (Figure 1).

Figure 1. Kinases translate dietary signals that influence immune cell activity and tissue health.

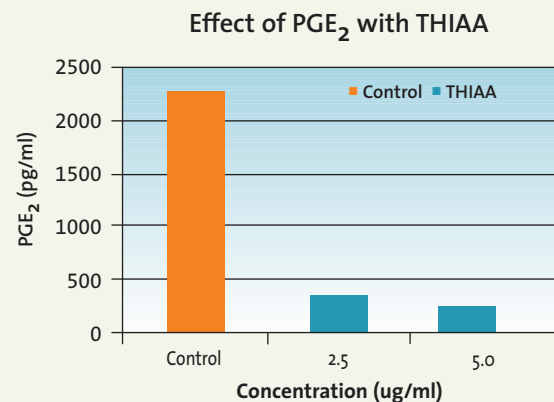


Selective Kinase Response Modulators (SKRMs) Positively Impact Health

Groundbreaking research suggests that certain food components can selectively modify kinase activity in favor of good health. This has led to the development of Tetrase™ (THIAA)—a modified hops extract with demonstrated SKRM activity.♦

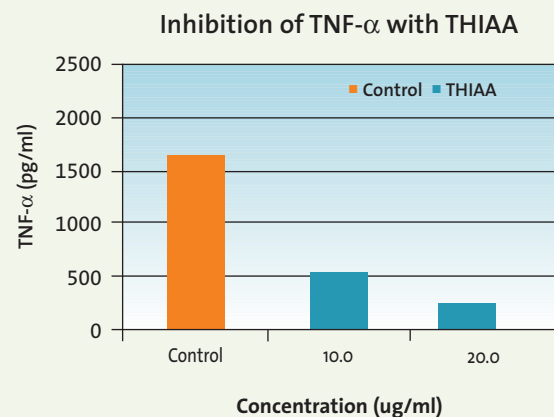
Tetrase is one of the most extensively researched SKRMs from hops. This scientifically engineered and tested ingredient has been shown to modulate specific kinases associated with activities underlying joint tissue health and immune function, such as PGE₂ and TNF-α (Figures 2 & 3).

Figure 2. THIAA appears to modulate PGE₂ effectively in a dose-dependent manner.



PGE₂ inhibition. Cells were pre-incubated with THIAA, followed by lipopolysaccharide (LPS) induced stimulation of PGE₂ production. The data show that compared to the control, THIAA inhibits the expression of PGE₂ more effectively.

Figure 3. THIAA appears to dramatically inhibit LPS induced TNF-α production.



TNF-α inhibition. Cells were pre-incubated with THIAA, and then stimulated with LPS to induce TNF-α production. Results show that THIAA can lead to greater inhibition of TNF-α expression in a dose-dependent manner.

SKRMs—A Safer Approach

Unleash the power of SKRMs to address the activity of enzymes associated with minor pain, as well as underlying issues associated with immune system balance.♦

Kaprex: Joint Support & Relief♦

Kaprex provides a safer approach to relief and effectively calms the body's minor pain cascade by modulating enzyme formation in cells associated with minor pain, without directly blocking cyclooxygenase (COX) enzyme activity—a mechanism known to cause adverse effects in some individuals.♦

Key Ingredients in Kaprex

THIAA

Scientific data suggest that THIAA modulates selective kinase responses associated with joint health.♦

Rosemary Extract

Research indicates that rosemary may decrease certain molecular activities that have been associated with perpetuation of the eicosanoid cascade.♦

Oleanolic Acid

Research suggests that oleanolic acid may support joint health by interfering with the activation of enzymes involved in eicosanoid (e.g., PGE₂) synthesis.♦

Indications

- Minor pain♦
- Joint relief♦



Kaprex AI: Balanced Immune Support♦

Kaprex AI is designed to support a balanced immune response and healthy immune activity by targeting underlying issues, including kinase signaling, cytokine balance, and specific nutrient levels.♦

Key Ingredients in Kaprex AI

THIAA

Scientific testing suggests that THIAA offers a safer approach to inhibiting TNF- α and PGE₂ production.♦

Bioactive Vitamin D₃

Studies have shown that vitamin D helps to modulate immune system function, such as cytokine activity.♦

Selenium & Zinc

Some studies show that selenium and zinc modulate key immune pathways.♦

Indications

- Immune modulation support♦

THIAA—A Powerful Modified Extract

Developed Through the **EXPRESSYN®** Process

High Level of Comparable Efficacy

The effectiveness of THIAA as an active ingredient is supported by a legacy of research spanning from in vitro research, animal studies, and human observational studies. Using rigorous, published technologies, we have performed tests which demonstrate that THIAA has a high level of comparable efficacy with a leading competitor.♦



Engineered for Efficacy, Bioavailability, and Safety

Kaprex and Kaprex AI were developed using Metagenics' exclusive ExpressSyn® Process, making them perhaps the most extensively researched natural approaches for kinase modulation.♦

In order to demonstrate efficacy, bioavailability, and a high level of predicted safety, the ExpressSyn Process takes natural formula development to a new level through:

- ▶ Cell proteomic research
- ▶ Safety evaluations
- ▶ Human ex vivo and clinical research
- ▶ Competitive analysis

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♦ These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, or prevent any disease.



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