

Immunity

How Korean Red Ginseng boosts the immune system



Background



Theory

The immunoactivity of Korean red ginseng (KRG) for healthy controls:

Natural foods come up in the discourse around enhancing bodily functions, one of which is ginseng. Most clinical studies of immune responses activated by KRG have been conducted exclusively in patients. However, there is still a lack of clinical research on immune boosting benefits of KRG for healthy persons. This study aims to confirm how KRG boosts the immune system of healthy subjects



Method

8-week randomized, double-blind, placebo-controlled trial:

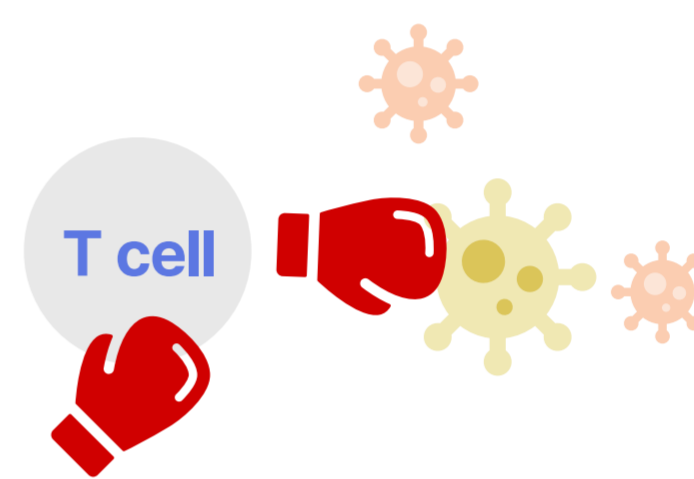
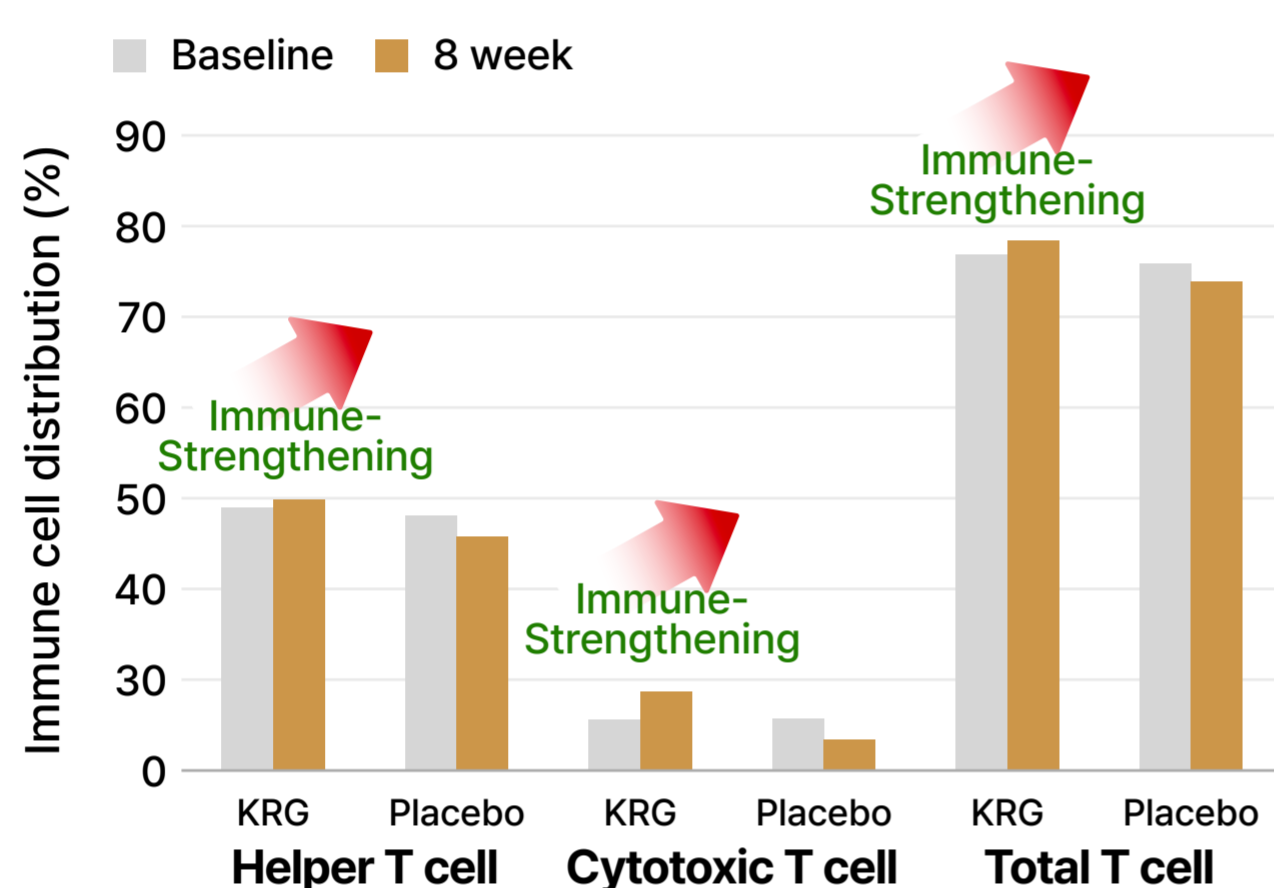
100 healthy subjects were randomly assigned between daily dose of 2 g KRG (n=50) or placebo (n=50). The primary efficacy evaluation variables included changes in T cells, B cells, and white blood cells (WBCs) before and after KRG ingestion. Cytokines, WBC differential count, and incidence of colds were measured in the secondary efficacy evaluation variables. Safety evaluation variables were used to identify changes in laboratory test results.



Outcome

With 100 healthy adult subjects {KRG group (n=50), placebo group (n=50)} over 8 weeks

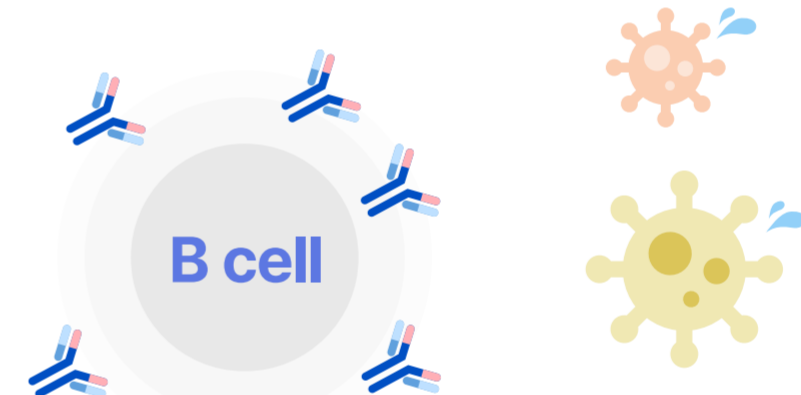
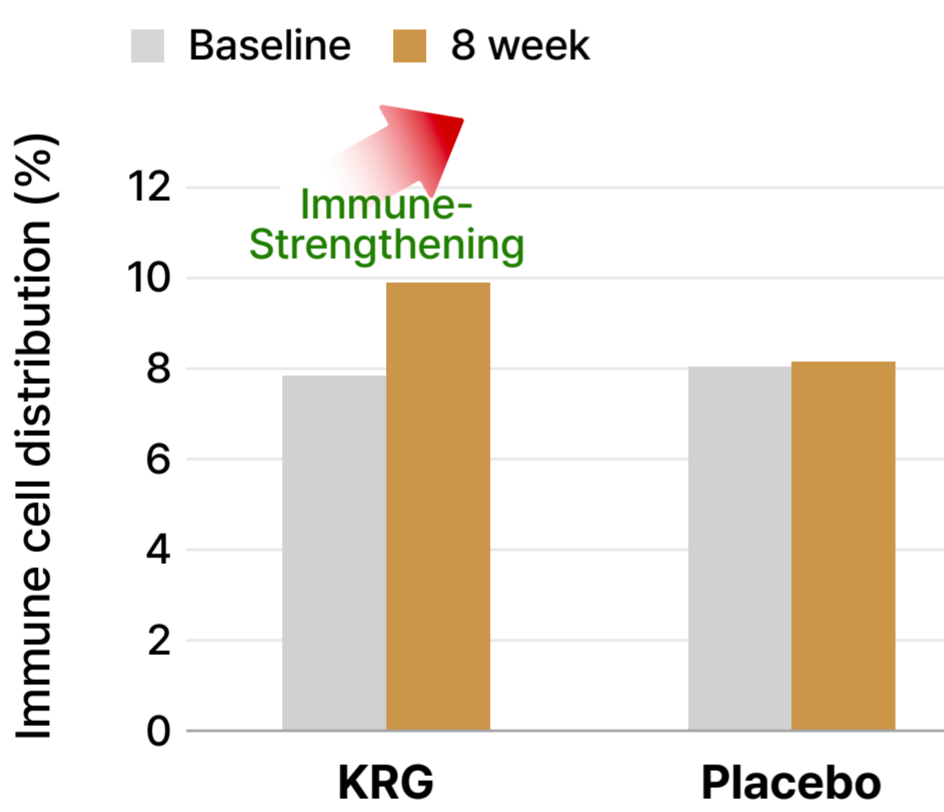
The degree of immunity enhancement: Cell-mediated immunity (T cell)



Changes in the T cell (from baseline to 8 weeks) significantly increased in the KRG group compared to the placebo group ($p=0.0348$).

T cell: An immune cell that acts as the effector of antigen-specific cell-mediated immunity.

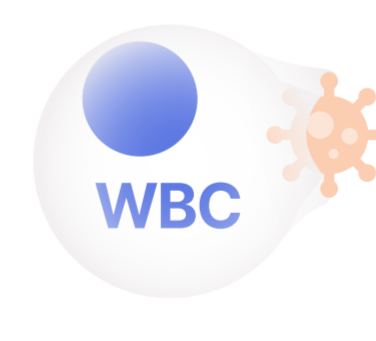
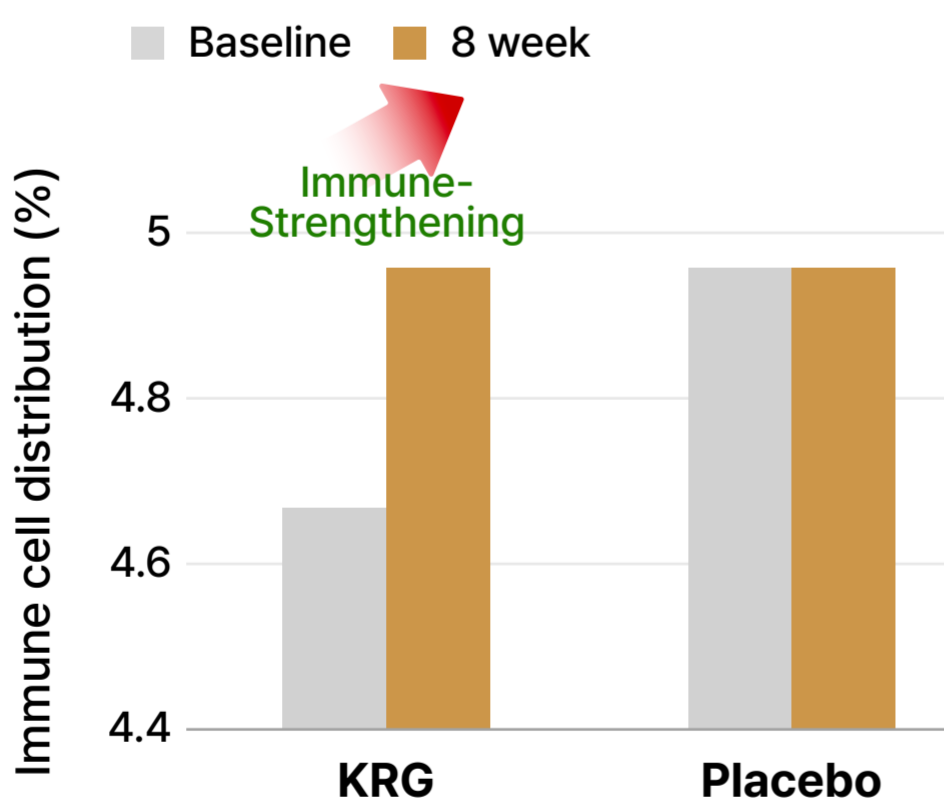
The degree of immunity enhancement: Humoral immunity (B cell)



Compared to the baseline, B cell distribution also changed after 8 weeks and significantly increased in the placebo group compared to the KRG group ($p=0.0061$).

B cell: An immune cell that destroys the extracellular microorganisms and prevents the spread of intracellular infections.

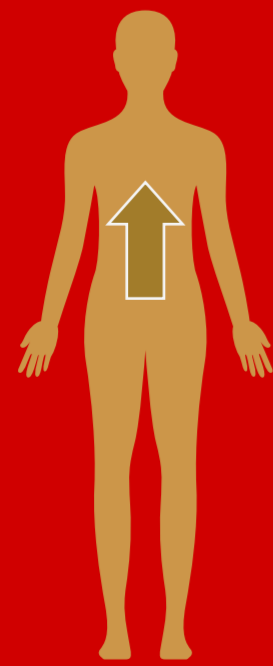
The degree of immunity enhancement: Phagocytosis (WBC)



From baseline to 8 weeks afterward, WBCs significantly increased in the KRG group compared to the placebo group ($p=0.0490$).

WBC: An immune cell that carries out phagocytosis ('eat' microorganisms and dead or damaged cell)

- After 8 weeks, KRG group showed a significant increase in the number of T cells, B cells, and WBC count, compared to the placebo group.
- There were no clinically significant adverse reactions or other notable results in the safety evaluation factors observed.



Impact



Supplement for increasing the number of immune cells

The significantly increased T cell, B cell and WBC levels confirmed that KRG increases immunity not only for cancer patients but also for healthy subjects with reduced immunity.

Conclusion

The benefit of Korean Red Ginseng on Immuno-enhancement

Through 8-week intake test and subsequent analysis, **KRG was proven its safety and immune boosting activity**. KRG increases the number of immune cells to help improve immunity when consumed by healthy adults with slightly downregulated immunity as an excellent immunopotentiator.