

# GOLD FACTOR SHOWS POTENTIAL ANTI-AGING BENEFITS\*

Technical White Paper

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## OBJECTIVE

The objective of this study<sup>1</sup> was to assess the effects of Gold Factor on telomerase activity and telomere length in human fibroblasts. Fibroblasts are cells that help maintain the structures of connective tissue and the synthesis of extracellular matrix proteins such as collagen. Fibroblasts are frequently used in studies related to wound healing, tissue regeneration, and cellular aging. Telomerase activity and telomere length are two important aging markers.\*

## BACKGROUND

The end structures of chromosomes are called telomeres. Like end caps protect shoelaces, telomeres protect chromosomes. Telomeres shorten over time as cells divide and grow older. Telomerase activity supports lengthening of telomeres. Therefore, telomere length and telomerase activity are often used as markers for cell aging.

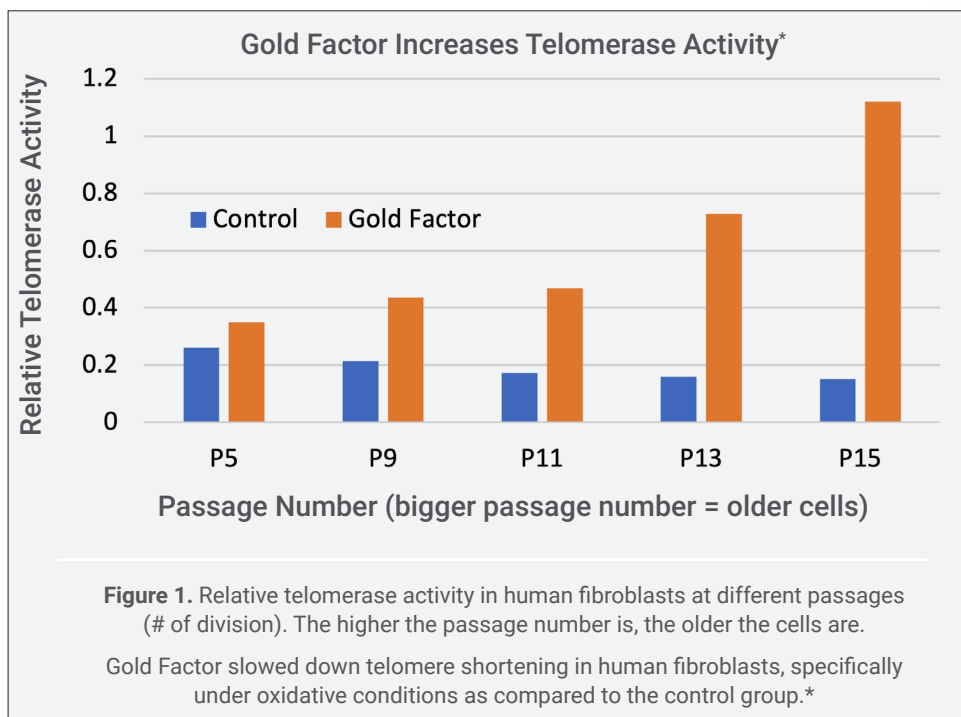
Certain bioactive ingredients such as Coenzyme Q10, bovine colostrum, antioxidants, and some essential vitamins and minerals have all been shown to slow telomere shortening, increase the lifespan of cells, and support healthy cellular aging. Gold Factor has been shown to possess potent antioxidant and anti-inflammatory effects, and thus may slow the shortening of telomeres by increasing telomerase activity.\*

## STUDY DESIGN

A variety of concentrations of Gold Factor were used to study the effects on telomerase activity and telomere lengths in two different types of human fibroblasts: primary human lung fibroblasts and primary human dermal fibroblasts.\*

## STUDY FINDINGS

Gold Factor strongly increased telomerase activity in human fibroblasts (Figure 1). Specifically, Gold Factor increased telomerase activity more in older cells compared to younger cells.\*



## CONCLUSION

This published peer-reviewed study showed evidence that Gold Factor may increase telomerase activity and slow down telomere shortening in human fibroblasts and, therefore, may exert potent anti-aging benefits.\*

\*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.