

TA-65[®] MD

Description

TA-65[®] is the only proven telomerase activator on the market. It is a single small organic molecule that is obtained by ultra purifying and concentrating one of the many bioactive compounds found in the astragalus root. "MD" stands for Molecular Dispersion technology which is the advanced delivery technology used in drug and nutritional supplement manufacturing to improve the effectiveness of an active molecule. MD enhances bioavailability by increasing the absorption rate of the TA-65[®] molecule in the human body.

Overview

Telomere is the repetitive DNA sequence at each end of chromosome. Telomeres are responsible for maintaining the integrity of our DNA. They play an essential role in cellular division and aging. Every human cell contains 92 telomeres, or biological ticking clocks. Each and every time our cells divide, these telomeres get shorter. When one becomes critically short, the cell either stops functioning properly or dies.

Telomerase is an enzyme that maintains the telomeres in order to prevent cell death. The gene producing the telomerase is usually turned off in most cells. When the telomerase gene is activated, it resembles a molecular motor and adds new DNA onto the ends of telomeres, thus lengthening short telomeres.

TA-65[®] MD is a telomerase activator, which has the ability to activate the telomerase genes to create the telomerase. When taken orally, TA-65 first circulates in the bloodstream and then enters aging cells to activate the telomerase enzyme. This causes the telomeres to grow longer and helps cells continue to divide and proliferate.

Clinical Studies

Shorter telomere length has been linked to a variety of degenerative disorders, including high levels of inflammatory markers, estrogen deficiency, cancer, and arteriosclerosis.^{1,2,3,4} In 2005, TA-65[®] MD was launched as a dietary supplement to maintain telomere length and inhibit accelerated aging. Researchers found that no adverse events were related to supplementation and that it significantly lengthened critically short telomeres and immune system.⁵ A study found that TA-65[®] MD is able to increase telomere length and decrease DNA damage by activating the telomerase enzyme. It has been shown to improve health factors in female mice without increasing cancer risks. These health benefits include skin improvements, bone health, and insulin balance.⁶ Researchers have found that reactivation of the telomerase enzyme in adult male mice reversed tissue pathologies, which rejuvenates aging tissue.⁷

Suggested Use

As a dietary supplement, take one (1) to four (4) capsules daily, or as advised by your healthcare practitioner.

TA-65[®] MD should be taken on an empty stomach, either in the morning (one hour before eating or taking other nutritional supplements) or evening before bedtime (at least two hours after eating). Dosage can also be divided between morning and evening.

It is recommended to take a two week break approximately every three months. Then start the three month cycle again. After every two week break, you can start taking TA-65[®] MD at the same dose you took prior to the break. Or you can choose to start at the lowest dose again, if you feel any discomfort.

Dosage

Low dose – When you start taking TA-65[®] MD, begin at the low dose of 250 units (1 capsule) each day.

Medium dose – For a medium dose, take 500 units (2 capsules) each day. This should start after taking the lowest dose (1 capsule) for at least 8 days.

High dose – After you take the medium dose for at least 8 days, increase the dose to 1,000 units (4 capsules) each day. Capsules can be taken together or divided between two capsules in the morning and evening.

Precautions

The maximum safe dosage of this supplement has not been determined.

This product is recommended to people over 25 years old. For pregnant or nursing women, or those with severe liver or kidney disease, please consult your physician prior to use.

Side effects should not occur with any of the suggested doses; yet, people may respond differently to the same dosing level. Dosage adjustments should be made based on the body's response to nutrient consumption.

An upset stomach may occur when taken on an empty stomach. If this happens, TA-65[®] MD can be taken with food.

Drug Interactions

We recommend that you take TA-65[®] MD at least 1 hour before/after you take other nutritional supplements or medicine.

Consult with your physician before taking TA-65[®] MD if you have serious ailments.

*Statements made herein have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

¹ O' Donovan A, Pantell MS, Puterman E, Dhabhar FS, et al. Cumulative inflammatory load is associated with short leukocyte telomere length in the health, aging, and body composition study. *PLoS One*. 2011;6(5):e19687.

² Aviv A. Genetics of leukocyte telomere length and its role in atherosclerosis. *Mutat Res*. 2011 May 8.

³ Bayne S, Li H, Jones ME, Pinto AR, et al. Estrogen deficiency reversibly induces telomere shortening in mouse granulosa cells and ovarian aging in vivo. *Protein Cell*. 2011 Apr;2(4):333-346.

⁴ Aubert G, Lansdorp PM. Telomeres and aging. *Physiol Rev*. 2008 April; 88(2):557-579.

⁵ Harley CB, Liu W, Blasco M, Vera E, et al. A natural product telomerase activator as part of a health maintenance program. *Rejuvenation Res*. 2011 Feb;14(1):45-56.

⁶ De Jesus BB, Schneeberger K, Vera E, Teiera A, et al. The telomerase activator TA-65 elongates short telomeres and increases health span of adult/old mice without increasing cancer incidence. *Aging Cell*. 2011 Mar 22.

⁷ Cox LS, Mason PA. Prospects for rejuvenation of aged tissue by telomerase reactivation. *Rejuvenation Res*. 2010 Dec;13(6):749-754.