

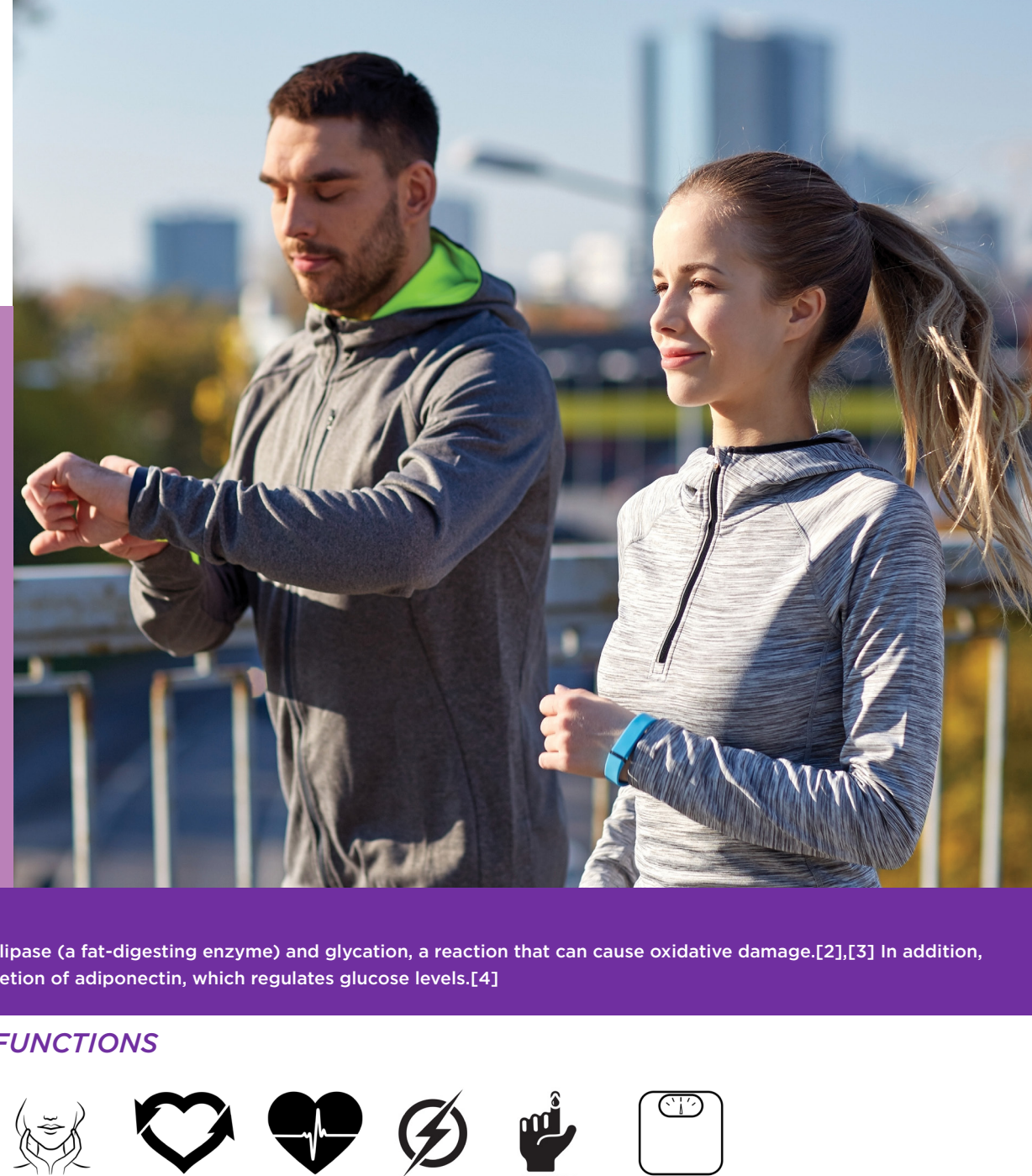
# Let SIRTMAX be the Anti-Aging Game Changer Your Formula Needs

Increasingly, scientists who study aging have focused their attention on a group of protective genes called sirtuins, especially SIRT1 (known as "the longevity gene"). SIRT1 "recharges" mitochondria — the "power plants" of the cells — which tend to wind down with age. Therefore, any substance that can enhance the SIRT1 gene pathway is of great interest to anti-aging researchers.

Derived from the rhizome of black turmeric (*Kaempferia parviflora*) and rich in polymethoxyflavonoids, patented ingredient Sirtmax™ could be the anti-aging ingredient you're looking for.

A double-blind, placebo-controlled human study with 27 subjects found that taking 100 mg of Sirtmax™ daily for seven weeks[1]:

- Caused a reduction in body weight\*
- Helped maintain blood sugar levels already within a normal range\*
- Decreased the production of advanced glycation end products (AGEs)
- Showed a trend toward improvement in arterial flexibility\*



## Mechanism of Action

Animal and *in vitro* research has shown that black turmeric inhibits pancreatic lipase (a fat-digesting enzyme) and glycation, a reaction that can cause oxidative damage.[2],[3] In addition, it has a favorable impact on adipogenesis (fat cell differentiation) and the secretion of adiponectin, which regulates glucose levels.[4]



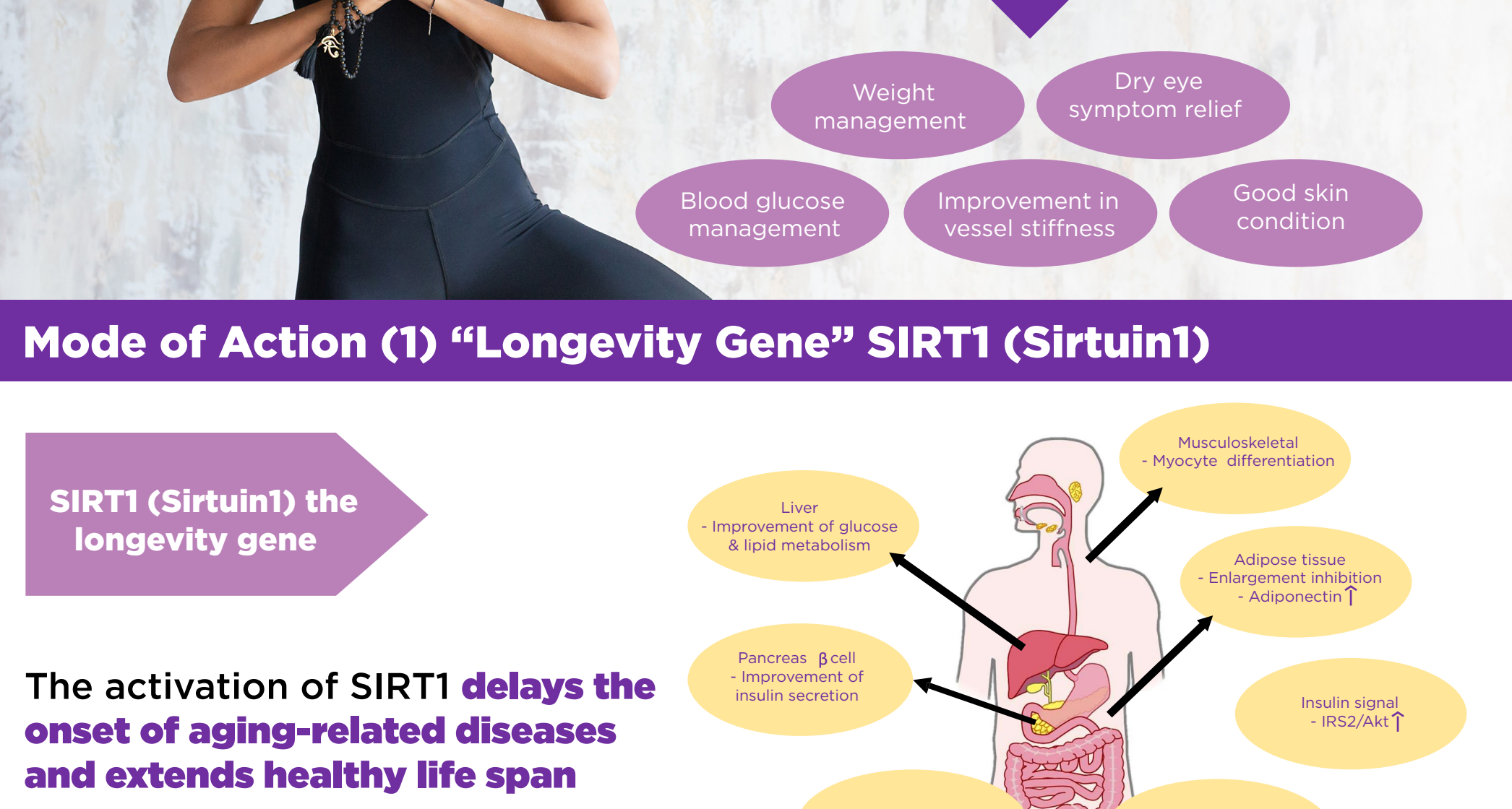
## Black Turmeric

**Scientific name:** *Kaempferia parviflora*  
**Family:** Zingiberaceae Genus: *Kaempferia*  
**Distribution:** Thai, Laos  
**Common:** Kra Chai Dam, Thai ginseng, black ginger  
**Characteristic constituent:** Polymethoxyflavonoids

**Traditional herbal medicine**  
 Known usage: nourishing tonic, fatigue and physical strength recovery, and longevity medicine

**Tea**  
 Thinly sliced dried black turmeric, boil in hot water

**Medicinal liquor**  
 Dried black turmeric. Soak in shochu (Japanese liquor)

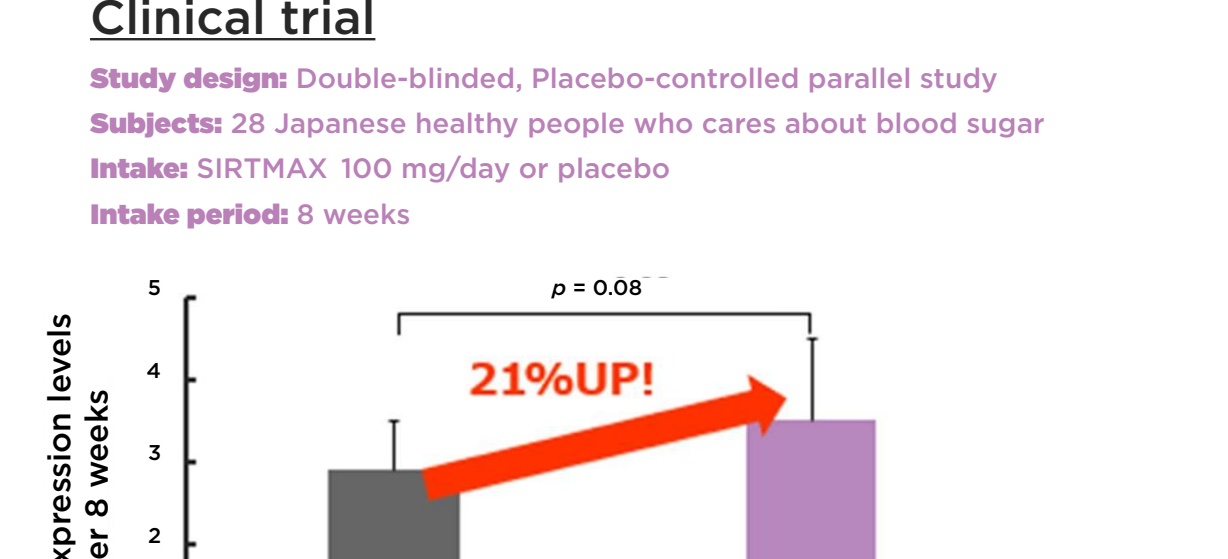


## Mode of Action (1) "Longevity Gene" SIRT1 (Sirtuin1)

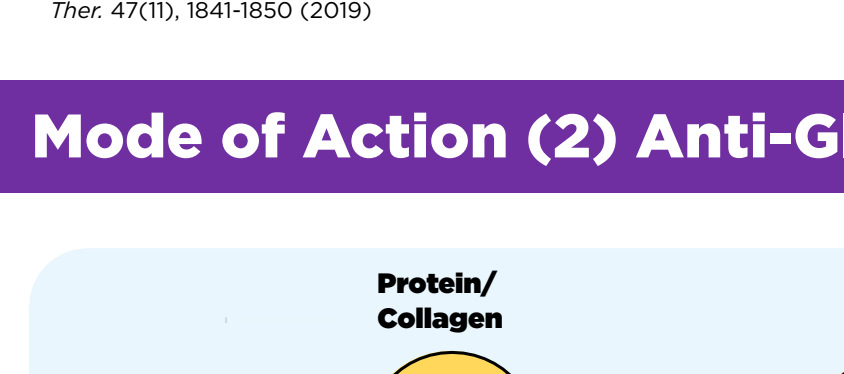
### SIRT1 (Sirtuin1) the longevity gene

The activation of SIRT1 delays the onset of aging-related diseases and extends healthy life span

*Nature Reviews Endocrinology*, 5, 367 (2009); *Natural Product Communications*, 9, 1291-1294 (2014)



### *In vitro* ✖ US / Japan patent

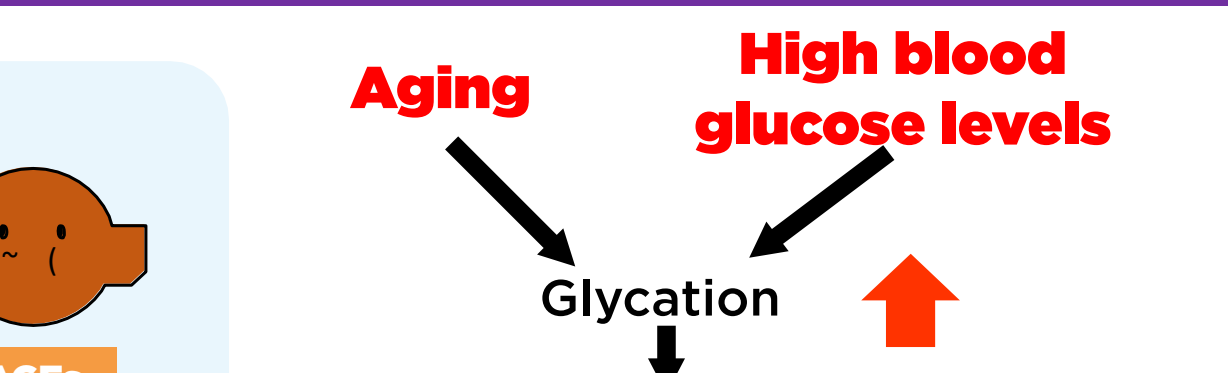


Resveratrol, a natural polyphenol in red wine, well-known for SIRT1 activator

*Natural Product Communications*, 9, 1291-1294 (2014); *Jpn Pharmacol Ther.* 47(11), 1841-1850 (2019)

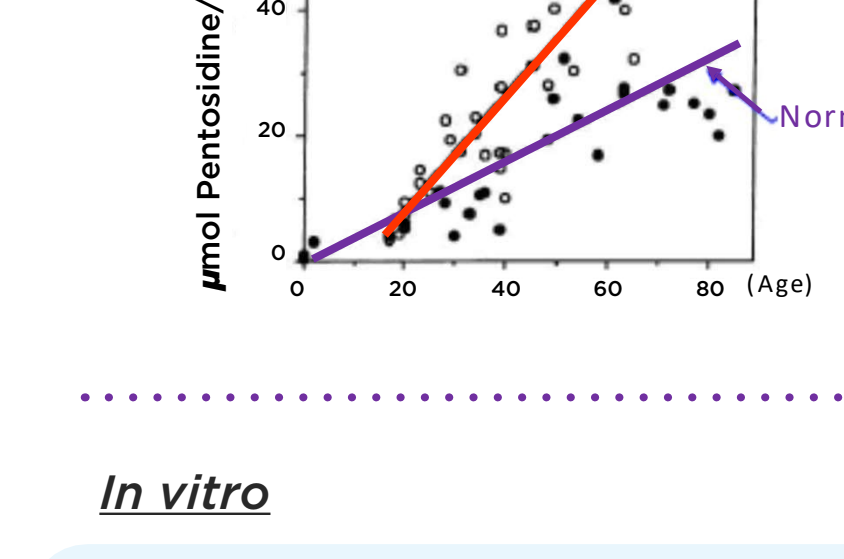
### Clinical trial

**Study design:** Double-blinded, Placebo-controlled parallel study  
**Subjects:** 28 Japanese healthy people who cares about blood sugar  
**Intake:** SIRTMAX 100 mg/day or placebo  
**Intake period:** 8 weeks

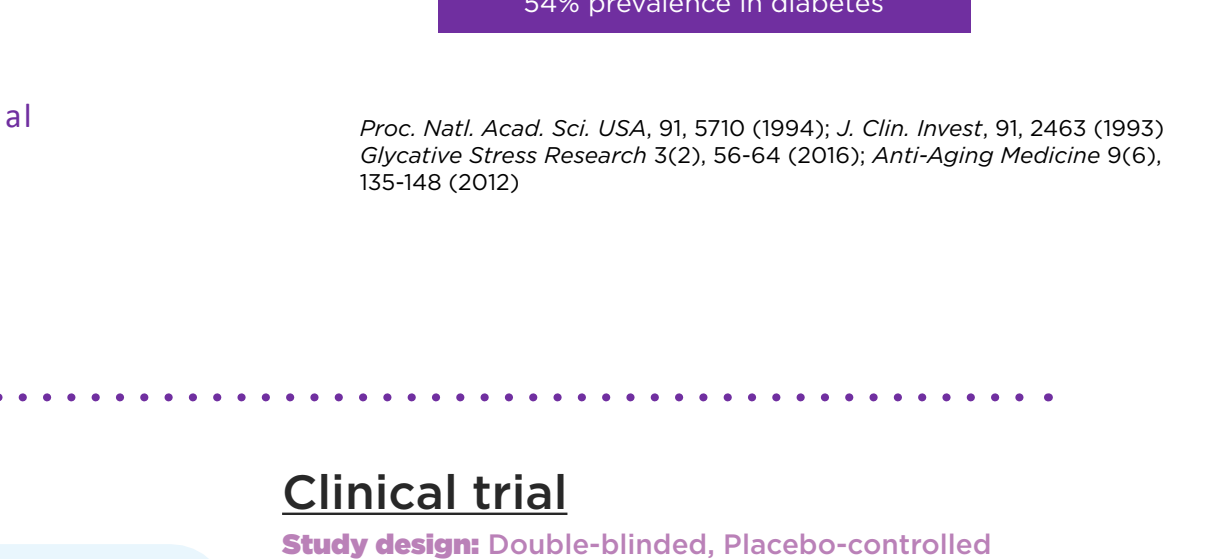
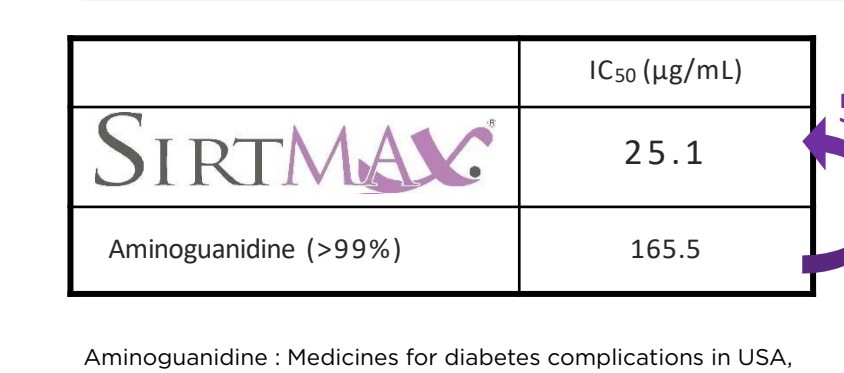


**SIRTMAX increases SIRT1 expression level**

## Mode of Action (2) Anti-Glycation



Glycation is increased by aging and high blood glucose levels



*Proc. Natl. Acad. Sci. USA*, 91, 5710 (1994); *J. Clin. Invest.*, 91, 2463 (1993); *Glycative Stress Research* 3(2), 56-64 (2016); *Anti-Aging Medicine* 9(6), 135-148 (2012)

### *In vitro*



Over 5 times

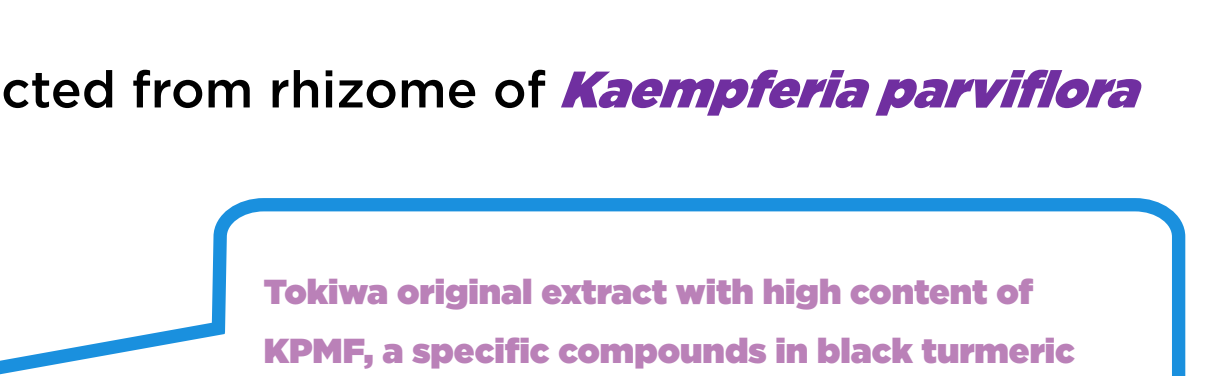
SIRTMAX	IC <sub>50</sub> (μg/mL)	25.1
Aminoguanidine (>99%)		165.5

Aminoguanidine : Medicines for diabetes complications in USA, Inhibitor of AGEs production

*Natural Product Communications*, 9, 1291-1294 (2014); *Jpn Pharmacol Ther.* 43(7), 997-1005 (2015)

### Clinical trial

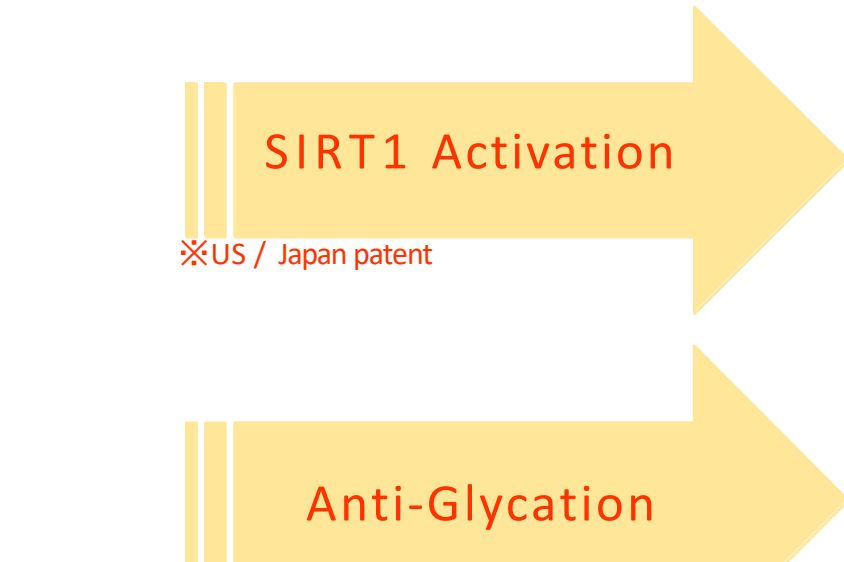
**Study design:** Double-blinded, Placebo-controlled crossover study  
**Subjects:** 27 Japanese healthy people  
**Intake:** SIRTMAX\* 100 mg/day or placebo  
**Intake period:** 7 weeks



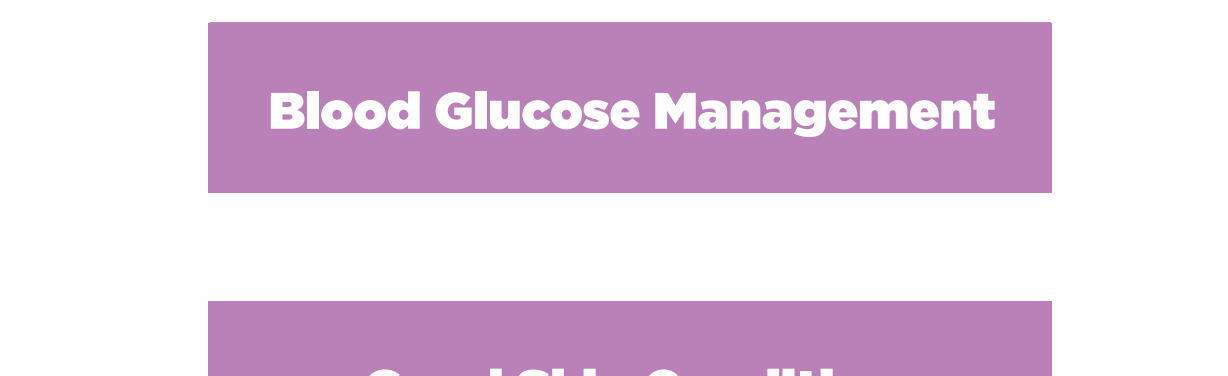
**SIRTMAX decreases AGEs level in blood**

## The Highest Active Compounds in the Market

SIRTMAX is extracted from rhizome of *Kaempferia parviflora*



Tokiwa original extract with high content of KPMF, a specific compounds in black turmeric

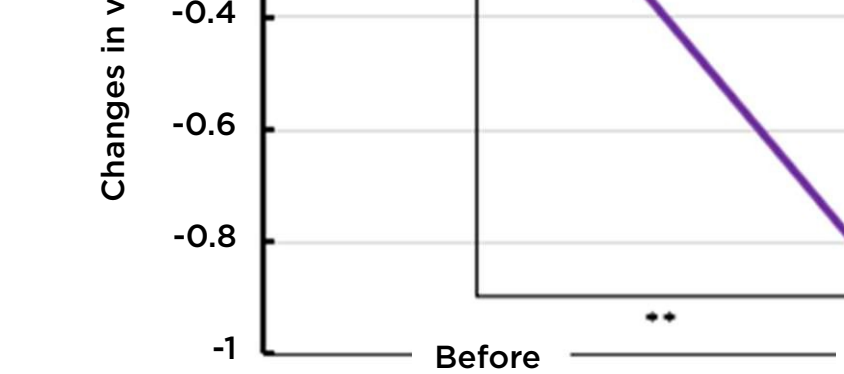


## Efficacy



### Weight Management

#### Body Weight

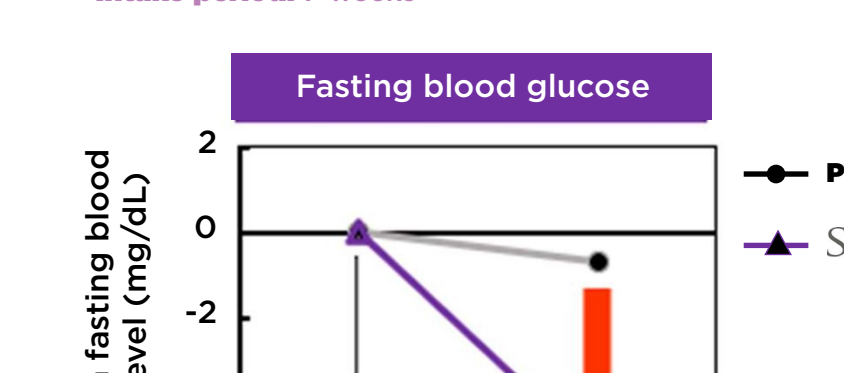


*Jpn Pharmacol Ther.* 43 (7), 997-1005 (2015)

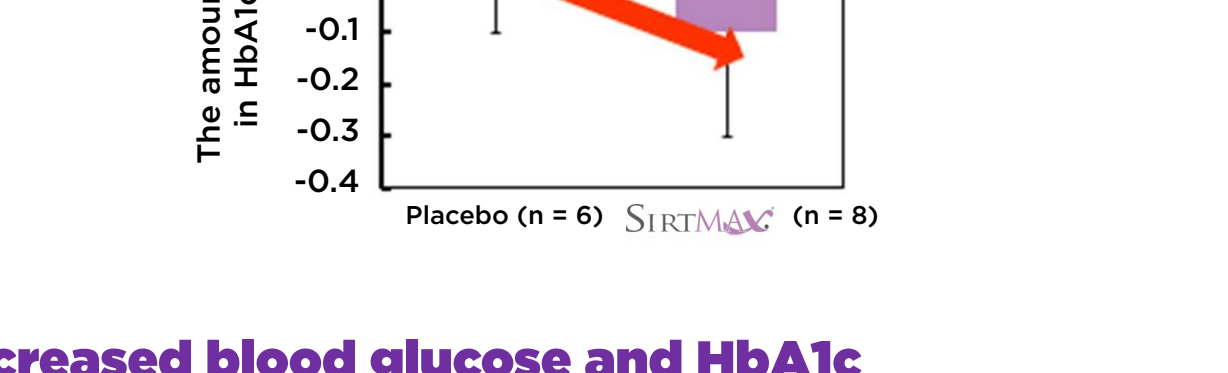
**Study design:** Double-blinded, Placebo-controlled crossover study  
**Subjects:** 27 Japanese healthy people  
**Intake:** SIRTMAX\* 100 mg/day or placebo  
**Intake period:** 7 weeks

### Blood Glucose Management

**Study design:** Double-blinded, Placebo-controlled crossover study  
**Subjects:** 27 Japanese healthy people  
**Intake:** SIRTMAX\* 100 mg/day or placebo  
**Intake period:** 7 weeks



**Study design:** Double-blinded, Placebo-controlled crossover study  
**Subjects:** 28 Japanese healthy people who cares about blood glucose  
**Intake:** SIRTMAX\* 100 mg/day or placebo  
**Intake period:** 8 weeks

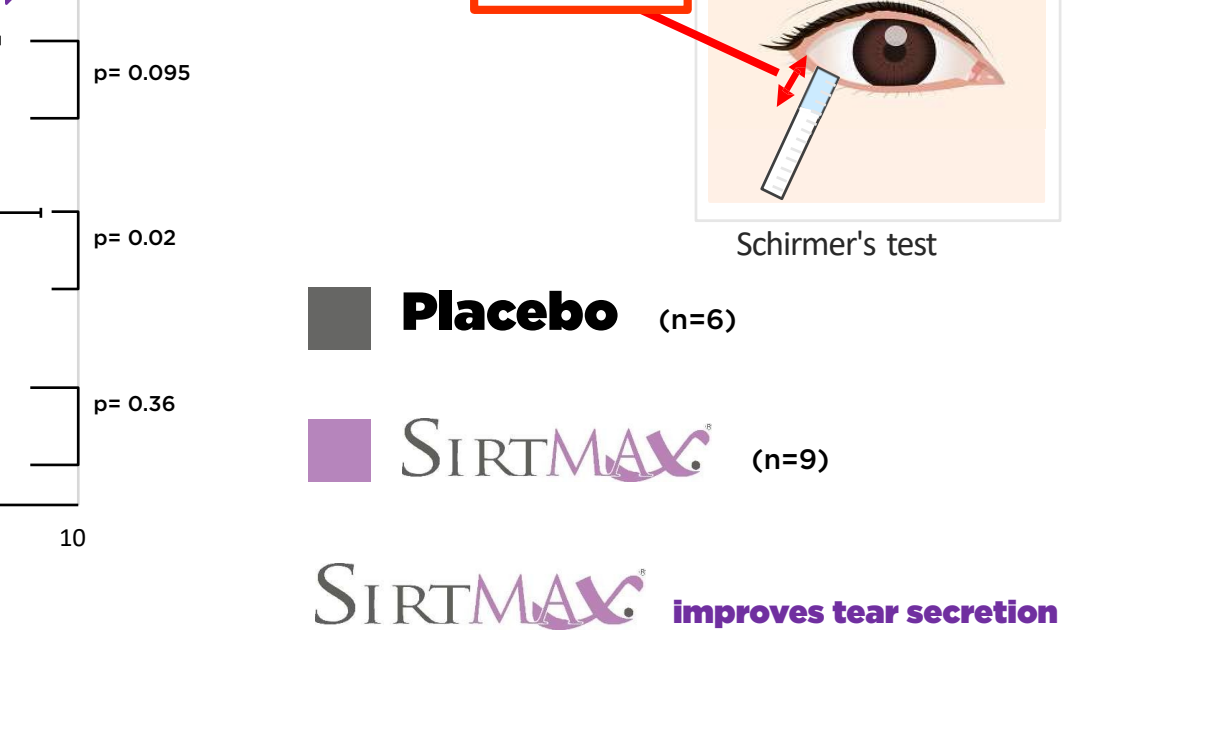
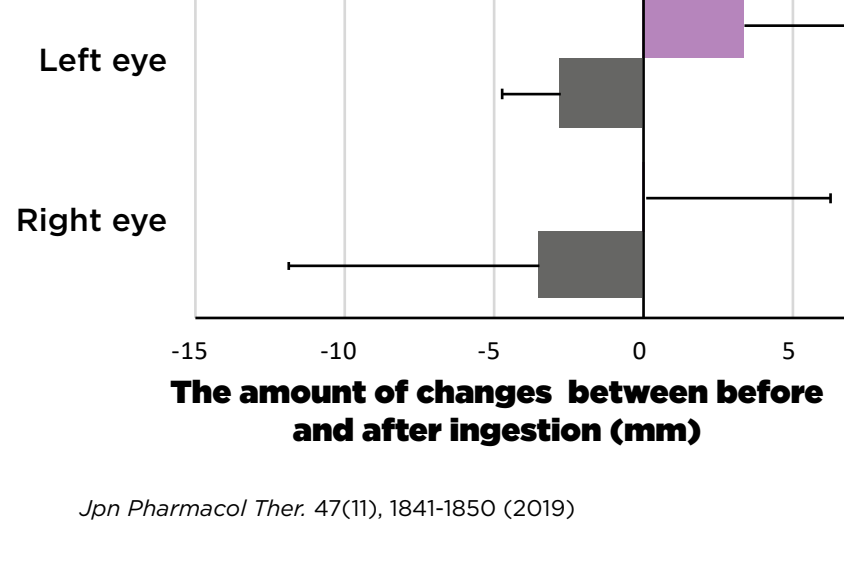


**SIRTMAX decreased blood glucose and HbA1c**

*Jpn Pharmacol Ther.* 43 (7), 997-1005 (2015); *Jpn Pharmacol Ther.* 47(11), 1841-1850 (2019)

### Dry Eye Symptoms

The length of wet strip (aged subject)

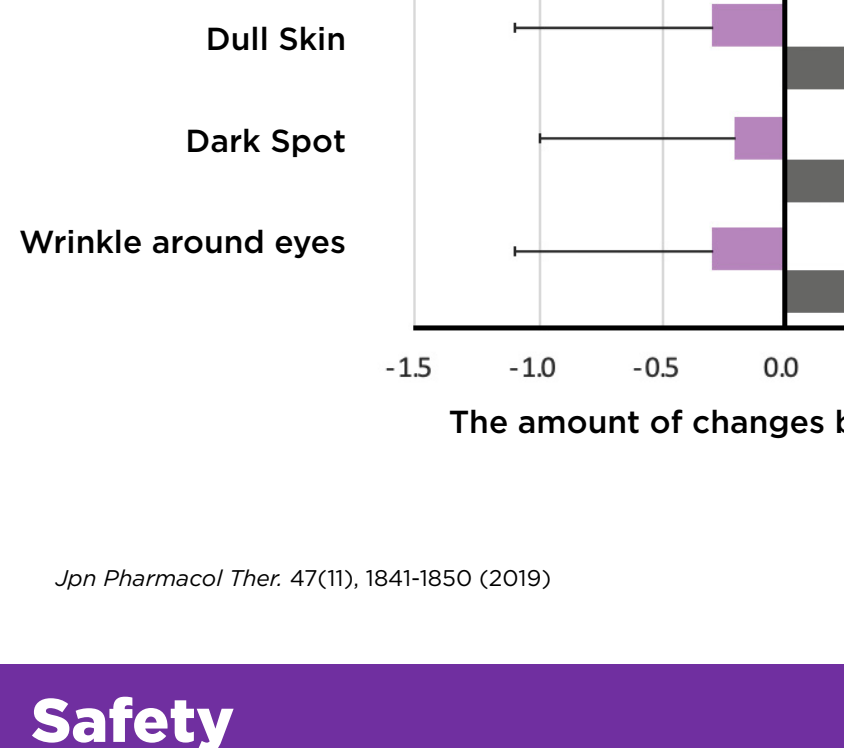


**SIRTMAX improves tear secretion**

*Jpn Pharmacol Ther.* 47(11), 1841-1850 (2019)

### Beauty Effects on Skin

Subjective symptoms (female subjects)



**SIRTMAX improves skin condition**

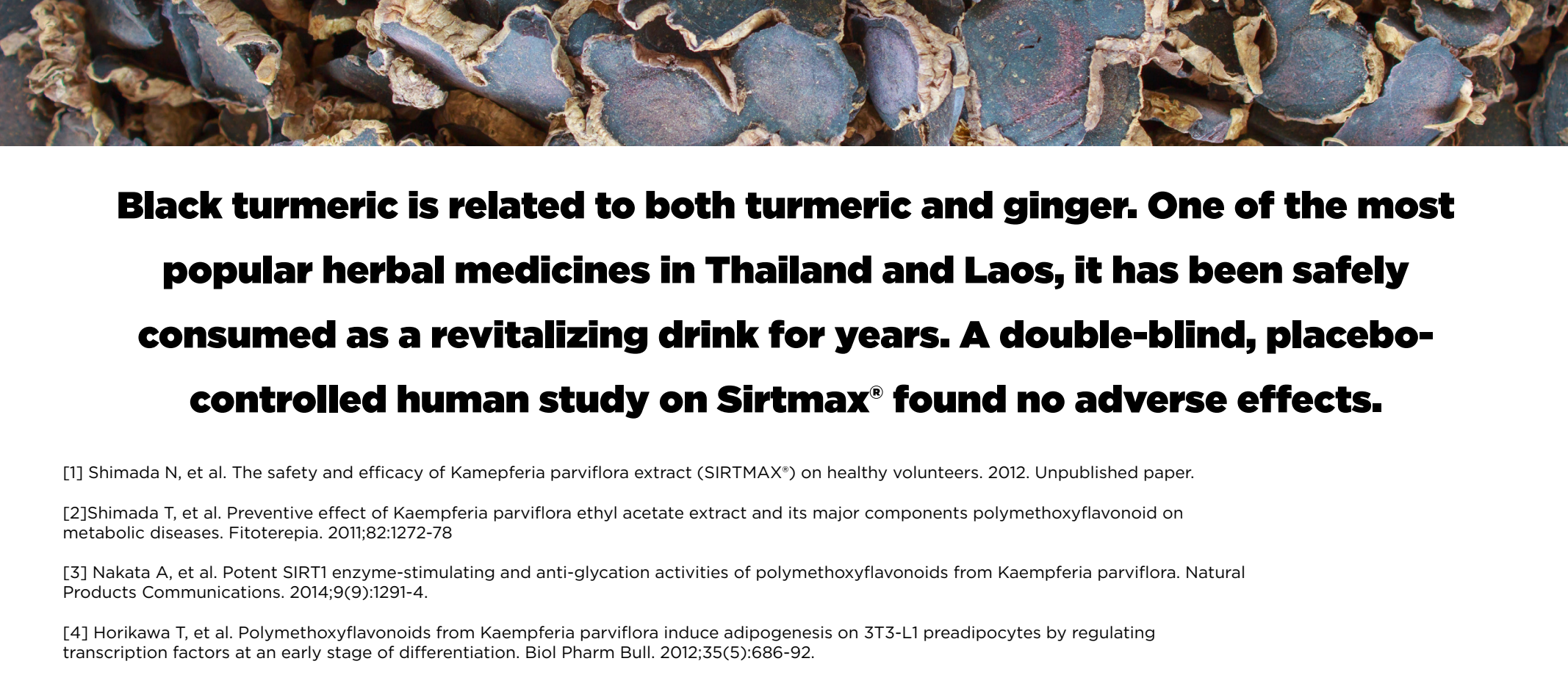
*Jpn Pharmacol Ther.* 47(11), 1841-1850 (2019)

## Safety

SIRTMAX has confirmed safety through animal and human trials

Method	Results
Ames Test	Negative
Acute toxicity (Mice)	LD <sub>50</sub> ≥2000 mg/kg (1) 7 weeks trial (100 mg/day) (2) 12 week trial (100 mg/day for 8 weeks   500 mg/day for 4 weeks)
Clinical trial	No severe adverse effects were observed

*Jpn Pharmacol Ther.* 43 (7), 997-1005 (2015); IMARS HIGHLIGHTS, 11(2) (2016)

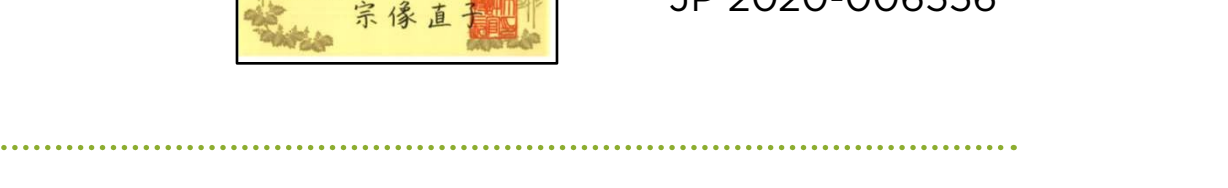


**Black turmeric is related to both turmeric and ginger. One of the most popular herbal medicines in Thailand and Laos, it has been safely consumed as a revitalizing drink for years. A double-blind, placebo-controlled human study on Sirtmax™ found no adverse effects.**

[1] Shimada N, et al. The safety and efficacy of *Kaempferia parviflora* extract (SIRTMAX™) on healthy volunteers. 2012. Unpublished paper.  
 [2] Shimada T, et al. Preventive effect of *Kaempferia parviflora* ethyl acetate extract and its major components polymethoxyflavonoid on metabolic diseases. *Fitoterapia*. 2011;82:1272-78  
 [3] Nakata A, et al. Potent SIRT1 enzyme-stimulating and anti-glycation activities of polymethoxyflavonoids from *Kaempferia parviflora*. *Natural Product Communications*. 2014;9(9):1291-4.  
 [4] Horikawa T, et al. Polymethoxyflavonoids from *Kaempferia parviflora* induce adipogenesis on 3T3-L1 preadipocytes by regulating transcription factors at an early stage of differentiation. *Biol Pharm Bull.* 2012;35(5):686-92.

## US/Japan patent

- JIHFS health food raw materials GMP certified
- HALAL certified
- HACCP certified
- Patent



### US Patent

SIRTUIN ACTIVATOR US 9,745, 279 B2  
 Applied for US patent about composition for improving quantity of tear fluid, constipation, and skin quality 16/727 411

### Japan Patent

SIRTUIN ACTIVATOR JP 6417630  
 Applied for Japan patent about composition for improving quantity of tear fluid, constipation, and skin quality JP 2020-006556