

# Tri-kesornmas: a Traditional Thai Remedy That Boosts Health, Extends Lifespan, and Fights Protein Damage in *C. elegans*

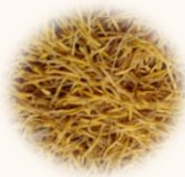
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coral bush stem bark

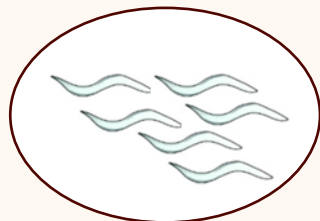


lotus stamen



bael fruit

Tri-Kesornmas



- reduces oxidative stress.
- helps worms live longer.
- protects against the toxic effects of  $A\beta$  protein.

## What is Tri-Kesornmas?

- **Tri-Kesornmas (TK)** is a traditional Thai remedy made from a combination of three natural ingredients: coral bush stem bark, lotus stamen, and bael fruit.

## Why Study TK?

- People have been using TK for a long time because they believe it promotes good health and helps with healthy aging.
- Scientists wanted to investigate if TK has any special properties that could benefit our bodies.

## What Did the Study Look At?

- The researchers focused on three things:
  - **Oxidative Stress Resistance:** How well TK can protect against harmful effects caused by oxidative stress (like rusting in our bodies).
  - **Lifespan Extension:** Whether TK could help organisms live longer.
  - **$A\beta$  Toxicity:** A toxic protein called amyloid-beta ( $A\beta$ ) is linked to diseases like Alzheimer's. The study checked if TK could counteract its harmful effects.

## How Did They Test TK?

- They made a dry powder from the herbal mixture by boiling it in water and then spray-drying it.
- This powder contained compounds like flavonoids and phenolic compounds.
- One specific compound, **protocatechuic acid**, was found in the TK powder at a level of **160.83  $\mu\text{g}$  per 100 mg** of TK.
- They used tiny worms called *Caenorhabditis elegans* (*C. elegans*) for their experiments.

## What Were the Results?

- Worms exposed to TK at **10  $\mu\text{g/ml}$**  survived better under oxidative stress conditions compared to the control group.
- TK at both **10  $\mu\text{g/ml}$**  and **100  $\mu\text{g/ml}$**  increased the worms' lifespan.
- When they tested TK against  $A\beta$  toxicity, it significantly delayed paralysis in the worms.

## Conclusion:

- TK seems to have some impressive effects:
  - It reduces oxidative stress.
  - It helps worms live longer.
  - It protects against the toxic effects of  $A\beta$  protein.

This study was done in worms, so more research is needed to see if TK has similar benefits for humans. But it's exciting to see how traditional remedies can still hold valuable secrets