

# TimeSel-BAM™

- Skin vital effect ingredient produced  
by ecofriendly Time-Drop® process -

## Applicable products of TimeSel-BAM™

Cosmetics ; skin, lotion, mask pack, essence, massage cream, eye cream

Personal care products ; hair conditioner, body care goods, etc

## What is TimeSel-BAM™ ?

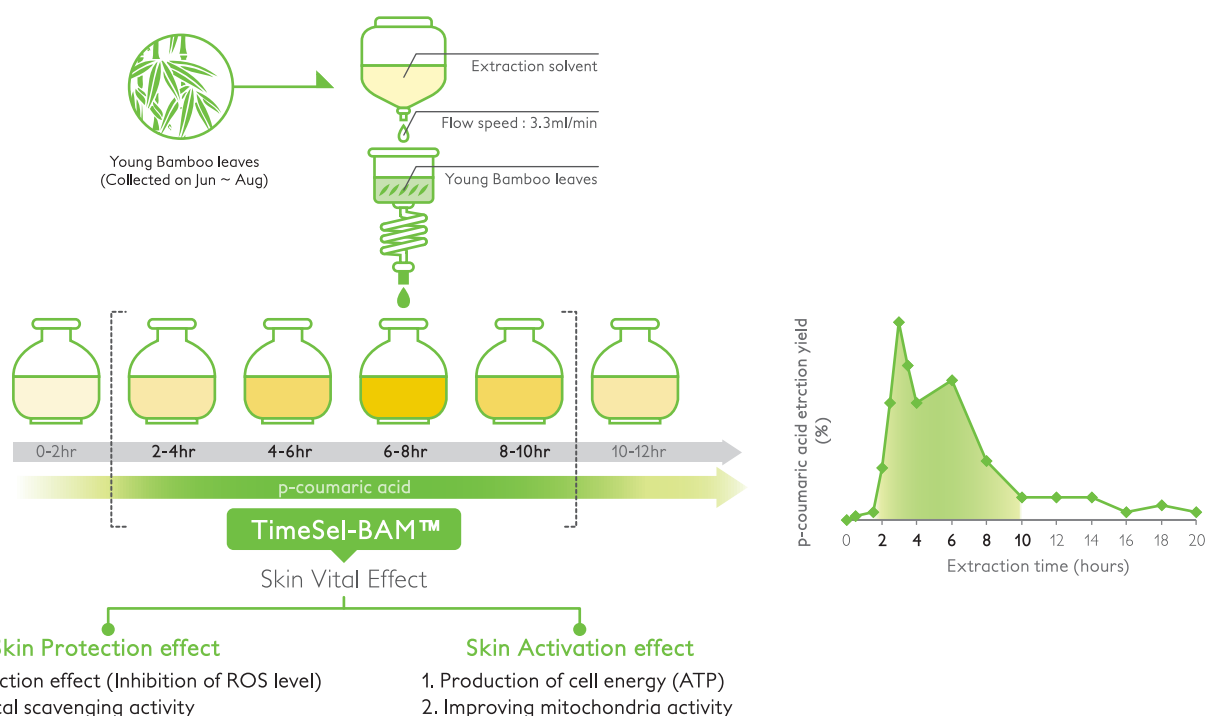
TimeSel-BAM™ is a skin vital effect ingredient derived from fresh young bamboo tea leaves. It has been produced by Time-Drop® process, TimeSel-BAM™ will help skin vital effect by bring highly concentrated life energy of bamboo leaves.

### Main Ingredients



Common name	Young Bamboo leaves
Latin name	Bambusa Vulgaris Extract
Main ingredient	p-coumaric acid, Gibberellic acid
<i>young bamboo tea leaves contains more p-Coumaric acid and 1.5 times higher total polyphenol than matured on.</i>	
Biological effects	Anti-oxidant, Anti-stress, ATP synthesis etc

## Explain about Time-Drop® process and mechanism for TimeSel-BAM™



## SPECIFICATION

INCI Name

Apperance

p-coumaric acid

Total polyphenol contents

Dosage

Shelf life

Butylene Glycol / Water / Bambusa Vulgaris Leaf Extract

Light brown ~ brown

100ppm

0.1%

0.5% to 2%

2 years

# Main Biological Effects for Cosmetics

## ● Cell protection effect

<ROS level ( % of H<sub>2</sub>O<sub>2</sub>) >

Control	H <sub>2</sub> O <sub>2</sub> treated				
	None	Quercetin (0.001%)	TimeSel-BAM™		p-coumaric acid (5 µg/ml)
			1%	2%	
42 ± 2.1	100 ± 6.1	53 ± 3.8	55 ± 5.1	40 ± 2.1	45 ± 2.8

We tested ROS production rate against oxidative stress, In results, TimeSel-BAM™ was shown that reduced intracellular ROS production rate of negative control in dose-dependent manner.

## ● Production of cell energy (ATP)

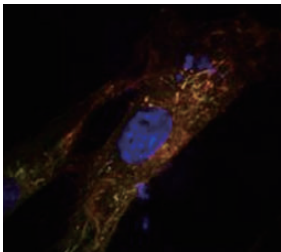
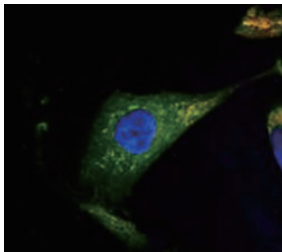
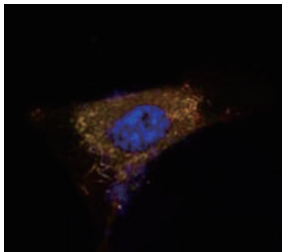
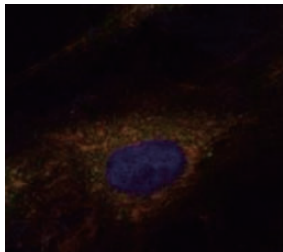
&lt;ATP concentration ( % of control) &gt;

Control	H <sub>2</sub> O <sub>2</sub> treated				
	None	CoQ10 (25µg/ml)	TimeSel-BAM™		p-coumaric acid (5 µg/ml)
			1%	2%	
100 ± 3.5	60 ± 4.9	90 ± 3.4	88 ± 5.1	96 ± 2.1	89 ± 2.8

When treated of TimeSel-BAM™ to cell that pre-treated H<sub>2</sub>O<sub>2</sub>, it shows increase of ATP synthesis. Also, active ingredient of bamboo tea leaves, p-coumaric acid showed good ATP synthesis effect.

## ● Improving mitochondria activity

&lt;ATP concentration ( % of control) &gt;

Control	H <sub>2</sub> O <sub>2</sub> treated		
	None	CoQ10(25µg/ml)	TimeSel-BAM™
			

Healthy mitochondria has high membrane potential and produce high energy. In the JC-1 staining test, when mitochondria has high membrane potential, it shows red fluorescent colors. When treated 2% of TimeSel-BAM™ to cell that pre-treated H<sub>2</sub>O<sub>2</sub>, it shows red fluorescent color as well as CoQ10.