

supports healthy weight management\*

# More fat burning\*

#### Introducing ActivAMP®

ActivAMP is extracted from *Gynostemma pentaphyllum*, an adaptogenic herb, and contains a family of compounds that upregulate alarmins including the sestrins, which are produced during exercise. The sestrins activate an enzyme called AMP-activated protein kinase (AMPk). AMPk is often called the "master metabolic regulator" and switches on the same fat-burning and energy-producing metabolic processes that exercise does. By regulating metabolic activity (in the liver, lipids, skeletal muscle and brain), AMPk influences glucose utilization, oxidation, and appetite.

## Product benefits

#### ActivAMP structure-function claims

The following structure-function claims for ActivAMP are provided here for informational purposes only and should be reviewed by your legal counsel prior to use in marketing materials, including product labels. ActivAMP supports healthy weight management for those who are overweight, in the following ways:

- Helps in the reduction of adiposity<sup>\*+</sup>
- Helps promote moderate weight loss\*+

<sup>†</sup>In a clinical study, participants taking Gynostemma pentaphyllum extract average about 1.35 kilograms adiposity related weight loss after 12 weeks compared to the baseline.

## Science inside

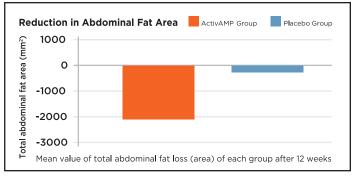
Human, animal and phytochemical studies show the effect of ActivAMP in supporting the metabolic process through AMPk activation.

#### Human clinical trial

A 12-week randomized, double-blind, placebo-controlled study on 80 overweight participants investigated the effects of 450 mg of *Gynostemma pentaphyllum* extract daily on body weight, fat loss, and other metabolic markers. The results showed statistically significant decreases in active group compared to placebo group in:

- Body fat mass\*
- Percent of body fat\*
- Body weight and BMI\*
- Total abdominal fat area\*





**Citation:** Park, S., et al, 2013. *Antiobesity effect of Gynostemma pentaphyllum extract: A randomized, double-blind, placebo-controlled trial.* Obesity Journal, DOI:10.1002/OBY.20539.

#### Animal study

An 8-week study on mice showed that oral administration of *Gynostemma pentaphyllum* extract resulted in decreased body weight gain and liver weight with AMPk activation in the soleus muscle.

**Citation:** Gauhar, R., et al, 2012. *Heat-processed Gynostemma pentaphyllum extract improves obesity in ob/ob mice by activating AMP-activated protein kinase.* Biotechnology Letters, DOI:10.1007/s10529-012-0944-1.

#### **Phytochemical studies**

Phytochemical studies of ActivAMP revealed the presence of specific saponins. These saponins are shown to promote AMPk activity.

#### Citations:

1. Hwang, J., et al., Antiobesity Effect of Ginsenoside Rg3 involves the AMPK and PPAR-y Signal Pathways. Phytother. Res. 23, 262-266 (2009). DOI: 10.1002/ptr.2606.

**2.** Kim, M., et al., *The ginsenoside Rg3 has a stimulatory effect on insulin signaling in L6 myotubes*. Biochemical and Biophysical Research Communications 389 (2009), p. 70-73.

**3.** Lee, Seohyun, et al., 2012. *Ginsenoside Rg3 Reduces Lipid Accumulation with AMP-Activated Protein Kinase (AMPK) Activation in HepG2 Cells.* Int. J. Mol. Sci., DOI: 10.3390/ijms13055729

4. Nguyen, P.H., et al. 2011. New dammarane-type glucosides as potential activators of AMP-activated protein kinase (AMPK) from Gynostemma pentaphyllum. Bioorg Med. Chem. DOI: 10.1016/j.bmc.2011.09.013.
5. Park, M.W., et al. 20(S)-Ginsenoside Rg3 Enhances Glucose-Stimulated Insulin Secretion and Activates AMPK. Biol. Pharm. Bull. 31(4) 748-751 (2008).

## Delivery and applications

ActivAMP is available as a free flowing powder and is suitable for use in powders, tablets and capsules.

### Why choose ActivAMP?

- Mechanism of action through AMPk activation
- Herb traditionally used in teas for centuries



### gencorpacific.com

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