

ALiVER

L-Leucine, L-Valine & L-Isoleucine
Food Supplement Oral Liquid Suspension

biocare
LIFESCIENCES INC
Providing quality, defining life.

"A New Concept of BCAA"



Ready to drink



No bitter after taste



Unique fruity flavor combination
(Banana, lemon & mint).



Easy to carry



info@biocarelifesciences.com

Tel No: (02)8809-0182

ALiVER

L-Leucine, L-Valine & L-Isoleucine
Food Supplement Oral Liquid Suspension

"A New Concept of BCAA"

1 | **Liver cirrhosis and liver disease**
Liver damage protection

2 | **Liver cancer**
Decreased HCC expression rate of HCV-related cirrhosis

3 | **Albumin Levels**
Improvement of Hypoalbuminemia

4 | **Weight and Body Fat**
Inhibiting Fat Production and Promoting Fat Degradation in Fat Cells

5 | **Post-operative**
Increased recovery, recovery speed and energy

6 | **Muscle Loss**
Helps Muscle Recovery After Bedrest

New Concept **B**ranch **C**hain **A**mino **A**cid

1st Suspension of

BCAA



Drug Information:

- L-Leucine : 1,904 mg
- L-Valine : 1,144 mg

Appearance

- White or pale yellow, viscous suspension with fruit flavor

Labeled Indication

- Improvement of hypoalbuminemia in uncompensated liver cirrhosis patients who show hypoalbuminemia despite abundant meal intake

Dosage & Administrations for labeled indication

- 1 sachet, 3 times daily after a meal

Storage

- Store in a tight, light-resistant container at room temperature (1~30°C)

Package Unit

- 30 sachets/box

biocare
LIFESCIENCES INC

4th Floor, 393 Goodwill Bldg., Senator Gil Puyat Ave.,
Brgy. Bel-air Makati City - 1209 Metro Manila, Philippines
Tel: (02)8 403 7032 / (02)8 403 7070 / (02)8 809 0182
www.biocarelifesciences.com

ALIVER

L-Leucine, L-Valine & L-Isoleucine
Food Supplement Oral Liquid Suspension

"A New Concept of BCAA"



biocare
LIFESCIENCES INC

Nutrition Facts

Serving Size:

No of serving per container: 30 Sachets

Serving Size: 1 Sachet	Amount	%RENI*
Energy (kcal)	30.686	<2
Total Fat (g)	0.014	-
Saturated Fat (g)	0.002	-
Trans Fat (g)	0.012	-
Cholesterol (mg)	0.2	-
Sodium (mg)	94.00	-
Total Carbohydrates (g)	4.032	-
Dietary Fiber (g)	0.26	-
Sugar (g)	0.06	-
Total Protein (g)	3.574	5.33

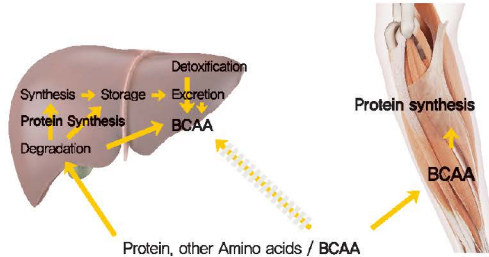
% RENI are based on FNRI adult requirements reference of 19-29 years old male.
(-) RENI not established

🕒 Pathway of BCAA

BCAA

Unlike other amino acids, BCAA can be used directly in the muscles after absorption

It is an amino acid that is given without going through the liver, metabolized in skeletal muscle, and essential for biosynthesis of human important proteins



🕒 Role of L-Leucine in intracellular protein synthesis

L-Leucine promotes the formation of eIF4E independently of insulin in protein synthesis stimulation mechanisms to increase protein synthesis

- ① Current Opinion in Clinical Nutrition and Metabolic Care 2010, 13:403-407
- ② Journal of Nutrition 2000 Feb;130(2): 139-145

🕒 Role of BCAA in the Body

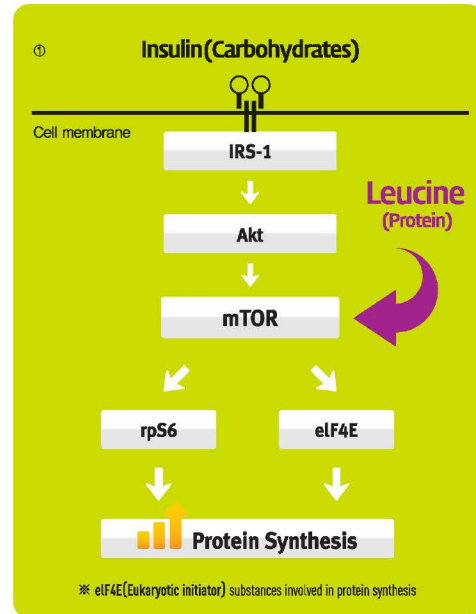
The Energy Supply



Inhibiting the degradation of muscle protein and promoting protein synthesis



Ammonia detoxification

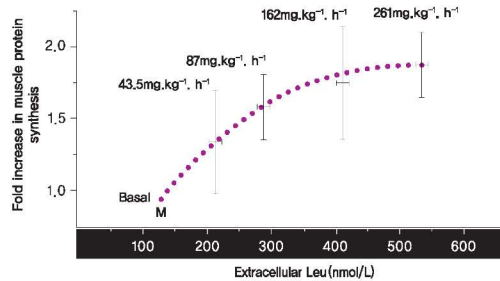


L-Leucine involved in muscle protein synthesis

Relationship between Muscle Protein Production and L-Leucine Concentration

The higher the concentration of extracellular fluid in L-Leucine, the higher the muscle protein production

The Journal of nutrition 136: 264S~268S, 2006



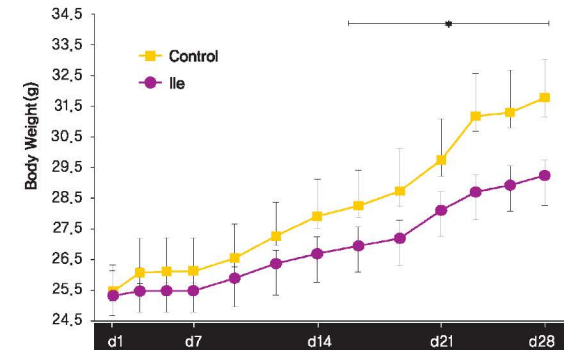
L-isoleucine (Ile) that contributes to weight and fat accumulation prevention

After supplementing L-isoleucine (Ile) in obese animals induced by high-fat diet, the Ile group increased the concentration of PPAR α and UCP, resulting in 6% lower weight gain than the control group, and 49% lower white fat tissue (WAT).

[Remarks]

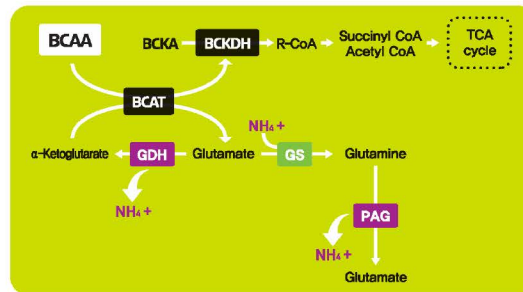
IPPAR α Up: control fat cell growth and insulin activity
UCP Up: increases metabolism (basic metabolism)

Journal of Nutrition, 140:496-500, 2010



Ammonia detoxification by BCAA

Protein is used in the body and to create a (adverse action of toxic substances, including NH₃, blood acidification). BCAA produces glutamate to detoxify ammonia and produces ATP (energy), which is almost the same amount as glucose.

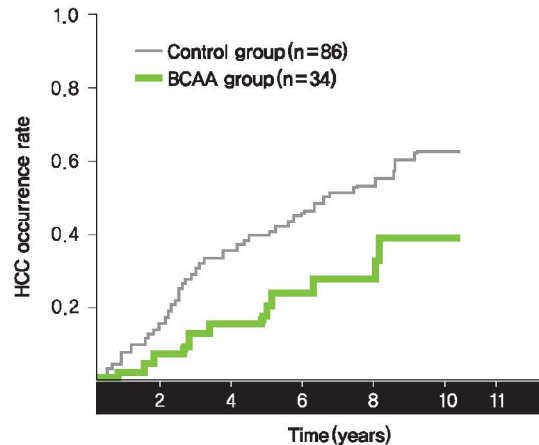


Nutrition, 2013 Jun 4. pii: S0899-9007(13)00090-7

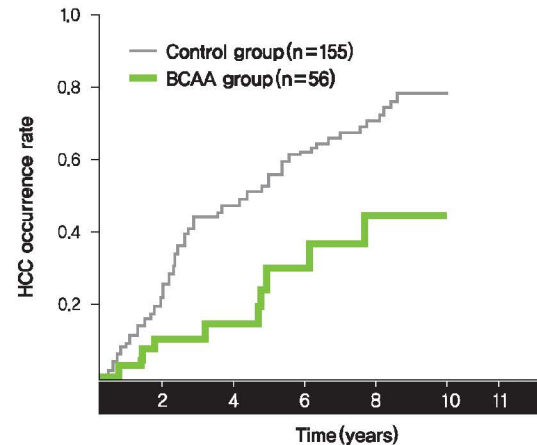


Effect for Liver Disease

Comparison of HCC Expression Rate in Patients with Liver cirrhosis after Oral Administration of BCAA



- The rate of HCC expression in patients with cirrhosis was significantly lower in the BCAA group than in the control group (p=0.0038; log-rank test)



- In patients with cirrhosis of HCV**, the HCC expression rate was significantly lower in the BCAA group than in the control group.

*HCC=Hepato cellular carcinoma **HCV=Hepatitis C virus

BCAA effects on liver disease improvement with obesity and diabetes
It has beneficial improvements in fat accumulation in the liver, and it has also improved liver fibrosis. (in mice)





Weight Control

ALIVER
L-Leucine, L-Valine & L-Isoleucine
Food Supplement Oral Liquid Suspension
"A New Concept of BCAA"

biöcare
LIFESCIENCES INC

(단위 : kg)

Protein Group	Time, Wk		Total loss
	0	10	
Body Weight	84.83 ± 3.64	77.30 ± 3.50	7.53 ± 1.44
Body Fat	38.97 ± 2.86	33.37 ± 2.81	5.60 ± 0.52
Lean Body Mass	42.69 ± 1.04	41.81 ± 0.99	0.88 ± 0.33

Values are means ± SEM, n=12, Means for a variable without a common letter differ, P<0.05

Changes in Weight and Body Fat in Consumption of high Mino Acid in Adult Women

- L-leucine inhibits lipogenesis and promotes lipolysis in fat cells.
- L-leucine promotes muscle protein production and stimulates mTOR, a factor involved in dietary intake control in the hypothalamus, thereby reducing food intake and reducing weight.

*mTOR : mammalian target of rapamycin

① THE JOURNAL OF NUTRITION 133:411-417, 2003 ② McMaster University, 2011 ③ Nutr Res Pract 4(2):106-113, 2010



ALiVER

L-Leucine, L-Valine & L-Isoleucine
Food Supplement Oral Liquid Suspension

"A New Concept of BCAA"



Ready to drink



No bitter after taste



Unique fruity flavor combination
(Banana, lemon & mint).



Easy to carry



biocare
LIFESCIENCES INC

4th Floor, 393 Goodwill Bldg., Senator Gil Puyat Ave.,
Brgy. Bel-air Makati City - 1209 Metro Manila, Philippines
Tel: (02)8 403 7032 / (02)8 403 7070 / (02)8 809 0182
www.biocarelifesciences.com