

The value of biotechnology
to human health.



Bio Value Co., Ltd
delivers new hope and
health message delivered
to our customers





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Mysterious mountain ginseng that has been passed down for thousands of years!

Mountain ginseng is a remnant plant of the geological age (about 10,000 years ago) and is a plant with strong independence and resistance against coldness. It is a unique plant that hibernates without making stalks until growing conditions are fully made when it is hurt or it is under poor growing conditions or uses up all surrounding nutrients. It usually grows slowly and has low fertility. In addition, mountain ginseng has been known as the most longevity herbaceous plant with very tricky growing conditions.

The scientific name of mountain ginseng and ginseng is "Panax Ginseng C.A Meyer". "Panax" is derived from the Greek, and means all-healing in Greek. "Ginseng" comes from the Chinese pronunciation. "C.A Meyer" is the name of the Soviet scholar who gave the scientific name of ginseng (mountain ginseng).



We want to popularize the special value of wild ginseng.



Certification

(Certificate Authenticity of Original Mountain Ginseng)

Mountain ginseng is natively growing in some areas from North Altitude 30 degrees to 48 degrees. The Heaven-grade mountain ginseng discovered in the Korean peninsula is very rarely found in some areas of northern mountains, Taebaek mountain, Odae mountain, and Jiri mountain. Pure wild mountain ginseng (Heaven-grade mountain ginseng) growing over 100 years is found as rare as about ten times a year.

There are a lot of variations in medicinal effects between Korean mountain ginseng and mountain ginseng in Manchuria, China, and Russian Far East. From old times, the Heaven-grade mountain ginseng growing in Korea has been considered as a wonder drug. According to traditional Chinese literature, Korean mountain ginseng has been used and preciously handled as a good medicine. Korean mountain ginseng has been known to be the elixir of life. Together with the theory of seven effects of mountain ginseng, various effects of mountain ginseng such as prevention of cancer, prevention of hypertension, anti-aging activities, increases in energy and stamina, stimulation of brain functions, enhancement of immune resistance and increase in vitality should be constantly and extensively studied.

Since Bio Value Co., Ltd. knows the special value of Korean mountain ginseng very well, we would like to enhance the competitiveness of national biotechnology industry and to popularize various benefits such as improvement in health and quality of life through our unique advanced plant tissue culture technology under the supports from national projects.

The efficacy of Mountain ginseng

-  Prevents cancer and enhances healing wound.
-  Treats heart disease, gastrointestinal disease and liver disease, is helpful for beautifying skin and coldness of hair
-  Helps treat diabetes
-  Improves brain activity and brightens the eyes.
-  Normalizes blood pressure
-  If you take wild ginseng, your constitution will gradually improve.
-  Energizes stamina in the body

We will become a health total solution company through biotechnology.



Unique mountain ginseng culture technology

After root tissues of wild mountain ginseng are isolated and cultivated by using the advanced biotechnology, they are massively cultured to produce mountain ginseng cultured roots through mass production. Mountain ginseng cultured root is root of 'tissue cultured mountain ginseng' which is artificially and massively cultivated through mass production as long as it has genes and ingredients which are almost the same as those of wild mountain ginseng. Bio value Co., Ltd. has acquired our own technology for mass production of mountain ginseng through research and development for 9 years.

As Korean people have been highly interested in mountain ginseng from ancient times, the tissue culture technology for mountain ginseng has been developed for the first time in the world. RRC in Jeju National University and a few Universities established this technology in the early 2000s. However, since each research group has its own technology which is different from one another, the properties of mountain ginseng cultured roots vary. Therefore, the KFDA individually issues the license to each manufacturer of mountain ginseng cultured root after it passes strict inspection.

As Bio Value Co., Ltd. used mountain ginseng cultured root developed by RRC in Jeju National University, we acquired the license issued by KFDA in 2004. Through various analyses on genes and ingredients of ginsenoside in wild mountain ginseng, mountain ginseng cultured root, ginseng, red ginseng, and wood grown ginseng, we have demonstrated that ingredients of mountain ginseng cultured roots of Bio Value are almost same as those of wild mountain ginseng but they are different from those of ginseng, red ginseng, and wood grown ginseng. Based on these results, Bio Value has secured our own technology for mass production of mountain ginseng cultured root, and are developing various kinds of products made of mountain ginseng cultured roots.

Mountain ginseng cultured root is a true achievement of modern biotechnology.

Cultivation (production) process of mountain ginseng cultured root



It is the Heaven-grade mountain ginseng itself



Excellent culture system which has been independently developed

- Differentiation of the production methods and the culture system when compared with those of competitors (direct heating method of sterilization)
- Fast turnover rate, installation of additional incubators to rapidly respond to the market, and excellent production efficiency
- Mass production of high value-added alternative microorganisms and plants by acquiring the technology for mass production of plants



Excellent abilities for component analysis

- Systems to compare and analyze ginsenosides included in mountain ginseng cultured roots, white ginseng, red ginseng and mountain ginseng and to analyze specific ingredients



System that fundamentally prevents contamination

- Differentiated system to fully prevent contamination
- Quick response system against contamination which may occur during the production process (emergency situations, natural disaster)



Multi-faced efficacy tests and R&D

- It will establish the opportunity to develop into health functional foods and pharmaceutical products through the plant culture technology and separation and identification of active substances

Features and competitiveness of production technology

DNA sequences of mountain ginseng cultured roots and wild mountain ginseng which is the parent of mountain ginseng cultured roots are analyzed. As a result, it is demonstrated that the structure of mountain ginseng cultured root is the same as that of wild mountain ginseng.

In addition, specific saponins such as Rh2, Panax saponin C, 20s-ginsenoside RF, Malonyl-G-Rb2 and Malonyl-G-Rd which are rarely detected in ginseng and red ginseng are found in mountain ginseng cultured roots and wild mountain ginseng

Simultaneous comparison of DNA sequences in wild mountain ginseng and culture mountain ginseng

DNA sequences of WG (wild mountain ginseng) and CG (culture mountain ginseng) are compared at the same time. DNA sequences of WG are the same as those of CG.

WG(wild ginseng) : CG(culture ginseng)

WG : 1	ccttacaatccgggtgagggagcaggggtgcgaagctcccaagttgcaaacccatgg	60
CG : 1	ccttacaatccgggtgagggagcaggggtgcgaagctcccaagttgcaaacccatgg	61
WG : 61	tcggggaccacccctgggtgatctgctcgaacaacgaccccccgcgggaatgcgc	120
CG : 62	tcggggaccacccctgggtgatctgctcgaacaacgaccccccgcgggaatgcgc	121
WG : 121	aaggaaatcaaatgaactgacgcgcgtccccccgttgcgggcgcggaagcgtcttc	180
CG : 122	aaggaaatcaaatgaactgacgcgcgtccccccgttgcgggcgcggaagcgtcttc	181
WG : 181	taaaaca	187
CG : 182	taaaaca	188

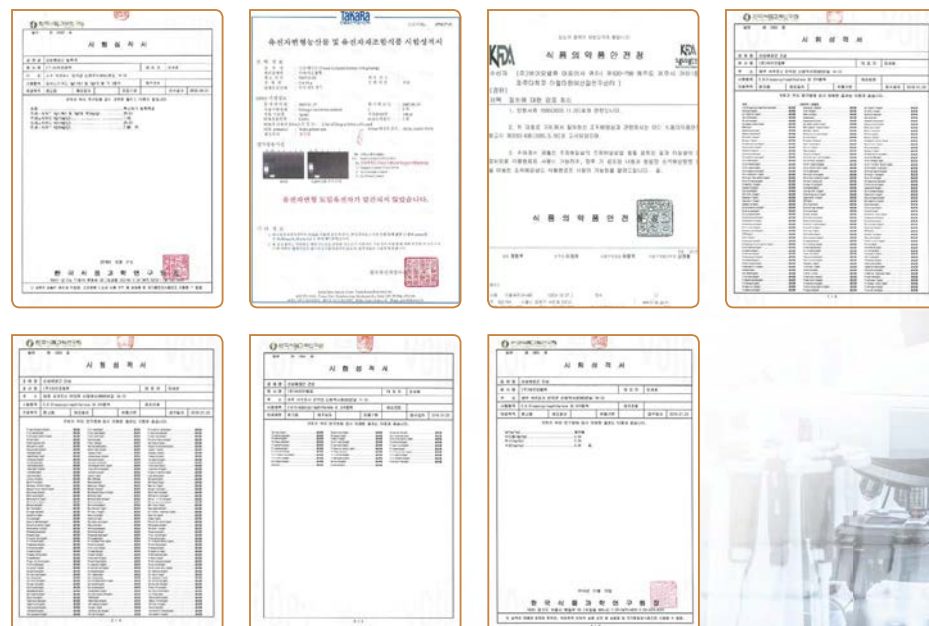
Patent & Certificates

Patent technology



- This invention relates to a composition containing extracts of mountain ginseng cultured root for treatment of hepatic fibrosis.
- Like ginseng, Panax schinseng NESS is a perennial herbaceous plant which belongs to panax genus. It is the wild plant distributed in Korea, China and Russia
- Mountain ginseng has been used as the valuable medicinal herb from ancient times. According to Donguibogam, its medicinal effects are well known
- Indications or benefits of mountain ginseng are similar to those of ginseng, but its effects are superior.
- Extensive research is being conducted to investigate the medicinal effects and pharmacological effects of mountain ginseng. A representative effect that has been scientifically proven is the homeostasis of body functions. Based on this action, anti-fatigue, anti-stress, anti-diabetic effects, blood pressure control actions, anti-cancer actions, prevention of arteriosclerosis and hypertension, enhancement of brain functions, enhancement of gastrointestinal functions, enhancement of immune functions and antiviral actions are reported. (In addition, if the functions of the body are excessively increased, it would reduce them. If the functions are excessively depressed, it would enhance them to maintain the normal state of the living body. In other words, it has been known that it does not only play a role as an adaptogen but also has no big side effects.)

Certificates



Sansam root-related efficacy

Related papers and reports

Hepatoprotective activity

Hepatoprotective activity of ginsenosides from Panax ginseng adventitious roots against carbob tetrachloride treated hepatic injury in rats. journal of Ethnopharmacology. 158:442-446(2014)

Anti-cancer and cancer prevention actions

Life extension test for Sarcoma 180 Cell - induced ascites cancer using mountain ginseng cultured root (Biotoxtech). Test no: B04150
Study on recovery of damaged human genes and anti-cancer actions using mountain ginseng cultured roots (Department of Biomedical Laboratory Science, Cheongju University)

Anti-oxidative activity

Test for anti-oxidative activity of mountain ginseng cultured root by using DPPH radical scavenging method (Biotoxtech). Test no: B03209

Whitening

A study on the effect of mountain ginseng adventitious roots extract. 2004. J. Soc. Cosmetics. Scientists Korea. 30:377-383

Improvement in sexual functions

Effects of tissue-cultured mountain ginseng(Panax ginseng C.A Meyer) extract on male patients with erectile dysfunction. Asian J. Andrology. 11:356-361(2009)

Antidiabetic effects

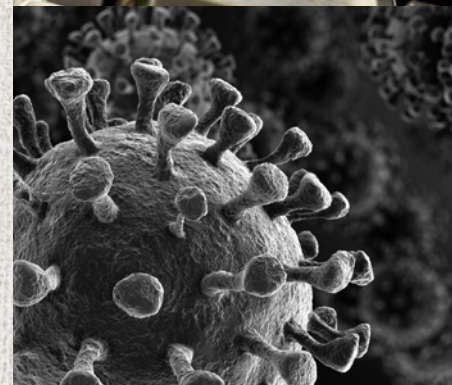
Bioprocess and bioreactor: Next generation technology for production of potential plant-based antidiabetic and antioxidant molecules. Current Medicinal Chemistry. 18(1)79-90(2011). Efficacy of ginseng adventitious root extract on hyperglycemia in streptozotocin-induced diabetic rats. Journal of Ethnopharmacology. 153:917-921(2014)

Enhancement in memory

Effects of long-term treatment with a tissue cultured mountain ginseng extract on scopolamine induced spatial memory impairment in rats. 한국의약회지(원광대약대)

Improvement in blood circulation and treatment of inflammation

Anti-platelet Activity of Tissue-Cultured Mountain Ginseng Adventitious Roots in Human Whole Blood. Food Science and Biotechnology. 17(6) 1197-1202(2008). Anti-inflammatory potential of saponins derived from cultured wild ginseng roots in lipopolysaccha-Int'l J Molecular Medicine. 35:1690-1698(2015)





Dry goods of mountain ginseng cultured root

After wild mountain ginseng which is genetically superior is selected, it is cultivated in a mobile incubator for about 45~60 days. After it is cultivated in an aseptic, pesticide-free, eco-friendly manner, it is lyophilized or dried using hot air.

Grade based on contents of main saponin in dry goods of mountain ginseng cultured root

- ① 0 ~ 10mg/g ② 10 ~ 20mg/g
③ 20 ~ 30mg/g ④ 30mg/g more

Products with higher contents of main saponin than those in above grade can be produced when it is ordered

Main saponin

Ginsenoside Re+Rg1, Rf, Rb1, Rc, Rb2, Rb, Rg3, Rh2



Concentrate of mountain ginseng cultured root

After wild mountain ginseng which is genetically superior is selected, it is cultivated in a mobile incubator for about 45~60 days. After being cultivated in an aseptic, pesticide-free, eco-friendly manner, it is extracted and then concentrated

Grade based on contents of main saponin in dry goods of mountain ginseng cultured root

- ① 100mg/g이하 ② 100 ~ 120mg/g
③ 120 ~ 150mg/g ④ 150mg/g more

Products with higher contents of main saponin than those in above grade can be produced when it is ordered

Main saponin

Ginsenoside Re+Rg1, Rf, Rb1, Rc, Rb2, Rb, Rg3, Rh2



Powder of mountain ginseng cultured root

After wild mountain ginseng which is genetically superior is selected, it is cultivated in a mobile incubator for about 45~60 days. After being cultivated in an aseptic, pesticide-free, eco-friendly manner, it is dried and then pulverized

Grade based on contents of main saponin in dry goods of mountain ginseng cultured root

- ① 0 ~ 10mg/g ② 10 ~ 20mg/g
③ 20 ~ 30mg/g ④ 30mg/g more

Products with higher contents of main saponin than those in above grade can be produced when it is ordered

Main saponin

Ginsenoside Re+Rg1, Rf, Rb1, Rc, Rb2, Rb, Rg3, Rh2

Product Line



Raw mountain ginseng cultured root

200g x 1pack

₩ 49,000



Directions

- If you want to take raw root : Fully chew about 10 g (20 ~ 30 g per day) in the morning and evening
- If you want to take it as fresh juice : It would be good to drink it after it is mixed with half piece of banana and 200 ml milk.
- It would be recommended to soak it in alcohol or to put it in food (rice, porridge, stew, salad, etc.)



www.biovalue.co.kr

Bio value
(주) 바이오밸류

※ Contains 38 roots of natural ginseng in bio-conversion



Heaven-grade mountain ginseng cultured root concentrate

100g

₩ 3,300,000



Directions

- You can take one spoon (about 1 g) which is enclosed in the product or you can dissolve it in warm water.
- Take it 1 ~ 3 times daily. One spoon at a time

※ Contains 7 roots of natural ginseng in bio-conversion



Heaven-grade mountain ginseng cultured pills

4.5g X 30환

₩ 700,000



Directions

- Take 1 tablet at least once a day

※ Contains 6 roots of natural ginseng in bio-conversion



Mountain ginseng cultured root powder 40g

₩ 600,000

Directions

- It is recommended that you take a spoonful (about 1g) of the product or mix it with warm water.
- 1 to 3 times a day, 1 spoonful a day



※ Contains 3 roots of natural ginseng in bio-conversion



Heaven-grade mountain ginseng cultured root concentrate gel 10g x 60포

₩ 500,000

Directions

- Cut the pouch along the dotted line and eat it.
- 1 to 3 times a day, 1 packet at a time



Healing crisis after taking mountain ginseng

- The body often has fever and red spots.
- You may feel drunk or feel like the body is lifted in the air.
- You may have severe diarrhea.
- You may experience difficulty controlling your body, as you feel stuffy in the chest and dizzy.
- You may ache all over the body as if you get a cold.

※ Contains 1.6 roots of natural ginseng in bio-conversion



Heaven-grade mountain ginseng cultured root Go 240g

₩ 400,000

Directions

- It is recommended that you take a spoonful (about 1g) of the product or mix it with warm water.
- 1 to 3 times a day, 1 spoonful a day



※ Contains 1 roots of natural ginseng in bio-conversion



Heaven-grade mountain ginseng cultured root vial gold 20ml x 30vial

₩ 298,000

Directions

- It is recommended that you take a spoonful (about 1g) of the product or mix it with warm water.
- 1 to 3 times a day, 1 vial at a time



Healing crisis after taking mountain ginseng

- You may bleed at the nose.
- You may continue to sleep or you may experience difficulty sleeping.
- Depending on your body constitution, the pharmacological action may appear differently. When the healing crisis disappears, the body feels light and refreshed.

A company that leads national health with the value of mountain ginseng

Company leading the national health with the value of mountain ginseng Bio Value is a biotechnology venture company established by Subtropical Horticulture Research Institute which is the RRC (Regional Research Center) in Jeju National University designated by Ministry of Science and Technology, the Korea Science and Technology Foundation, and the Ministry of Commerce, Industry and Energy in order to industrialize research achievement which they obtained for 9 years. We do not only produce mountain ginseng cultured root but also conduct R&D to develop into health functional pharmaceutical products by identifying pharmacological mechanisms of active ingredients containing mountain ginseng cultured root.



▲ Products are manufactured safely and carefully at the production plant located in clean Jeju areas with clean environment.

