



Health Functional Food Resource

Technology Overview

• Fermented Turmeric:

Raw Material: Curcuma longa L.

The turmeric powder was fermented by Aspergillus oryzae followed sterilization

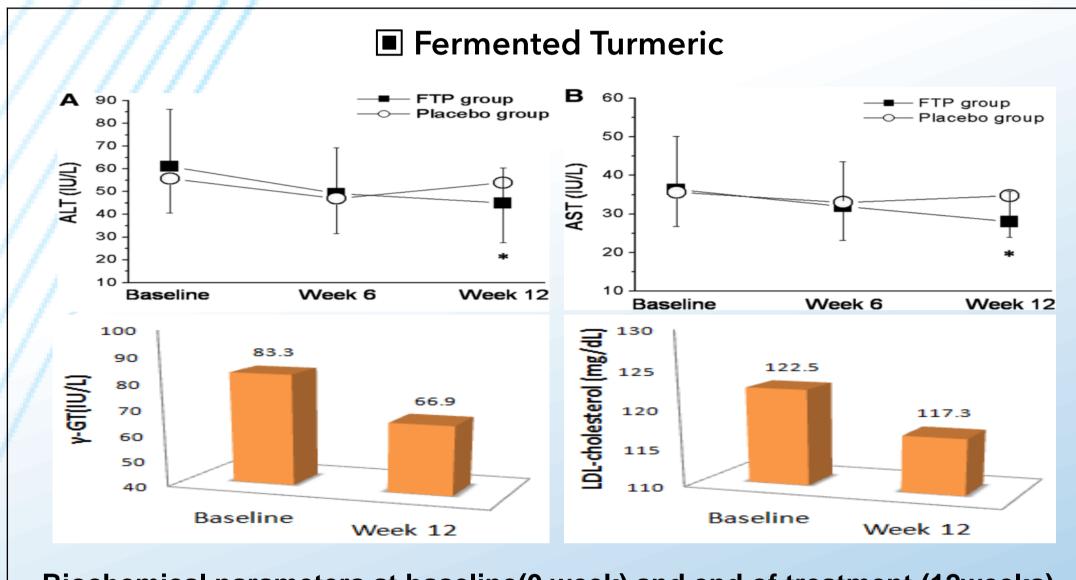
• Eriobotryae Folium Extract :

Raw Material: Eriobotrya japonica L.

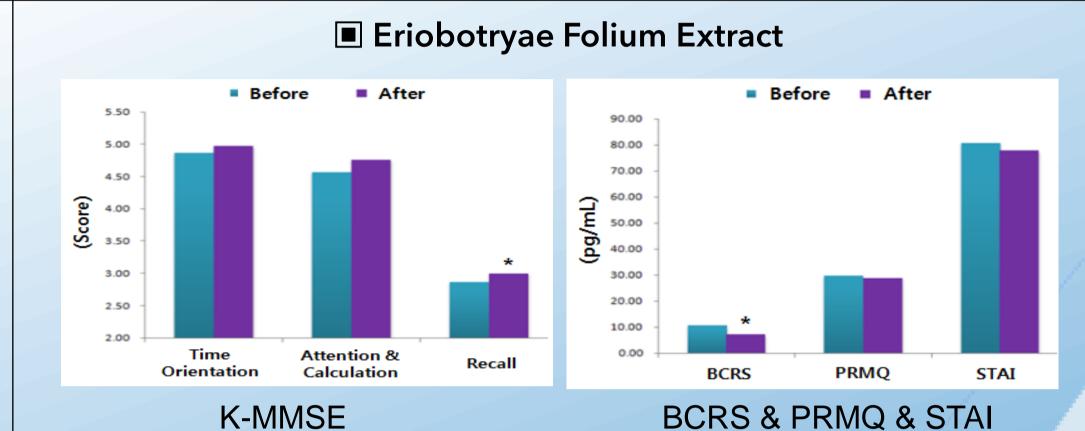
The Eriobotrya japonica L. leaf was extracted by ethanol and dried

• These materials were obtained recognition as a Health Functional Food from the MFDS (Ministry of Food and Drug Safety) of South Korea

Core Technologies (Human Clinical Test)







- K-MMSE(Korea Mini-Mental State Examination): The score increased from the group Eriobotryae Folium Extract for 12 weeks
- BCRS(Brief Cognitive Rating Scale), PRMQ(Prospective and retrospective memory questionnaire), STAI(State-trait anxiety inventory): The BCRS, PRMQ, STAI level decreased from the group Eriobotryae Folium Extract for 12 weeks

Application Area and Advantages

Fermented Turmeric

Development of improved liver health functional food

Eriobotryae Folium Extract

Developed for youth memory improvement health functional food



Accomplishments

- PAPER
 - Fermented Turmeric
 - Hepatoprotective effects of fermented Curcuma longa L. on carbon tetrachloride-induced oxidative stress in rats(Food Chemistry, 151, 148-153, 2014)
 - Prevention of Ethanol-induced Hepatotoxicity by Fermented Curcuma longa L. C57BL/6 Mice(Food Sci. Biotechnol. 23(3), 925-930, 2014)
 - The effectiveness of fermented of turmeric powder in subjects with elevated alanine transaminase levels: a randomised controlled study(BMC Complementary and Alternative Medicine, 13, 58-64, 2013)
 - Eriobotryae Folium Extract
 - Neuroprotective effects of Eriobotrya japonica against β-amyloid-induced oxidative stress and memory impairment(Food and Chemical Toxicology, 49, 780-784, 2011)
 - Anti-amnesic Effect of Eriobotrya japonica Leaf Extract on Scopolamine-induced Memory Impairment in Rats(J Korean Soc Food Nutr 43(6), 799-806, 2014)

PATENT

- Fermented Turmeric
 - A composition comprising an dry powder or extract of the fermented rhizoma of *Curcuma longa* L. for treating and preventing non-alcoholic liver disease(Patent No. KR 10-1303308)
- A composition comprising the fermented rhizoma of *Curcuma aromatica* Salisb for treating and preventing alcoholic a liver disease(Patent No. KR 10-1117301)
- Eriobotryae Folium Extract
 - A composition comprising the extract of Eriobotryae Folium for treating and preventing nuerodegenerative disease(Patent No. KR 10-1077522)







