OMEOlipid®

FOR LIPID METABOLISM

ARTICHOKE
Cynara scolymus L.

CAIHUA
Cyclanthera pedata (L.) Schrad.

FENU GREEK
Trigonella foenum-graecum L.

Rev. 01

www.eposrl.com

Omeolipid® is a blend of artichoke, caihua and fenu greek with anti-cholesterolemic, hypolipidemic and cholagogue properties, standardized to contain ≥ 3 % chlorogenic acid.

OMEOLIPID® COMBINES THE TRADITIONS OF THREE DIFFERENT COUNTRIES:

ARTICHOKE *Cynara scolymus* L.

Artichoke is a Mediterranean plant; its cultivation in Europe dates back to ancient Greece and Rome. Its active substances (caffeoylquinic acids, flavonoids, sesquiterpene lactones) are concentrated in the leaf, acting as digestive, colagougue, hepatoprotective and depurative.

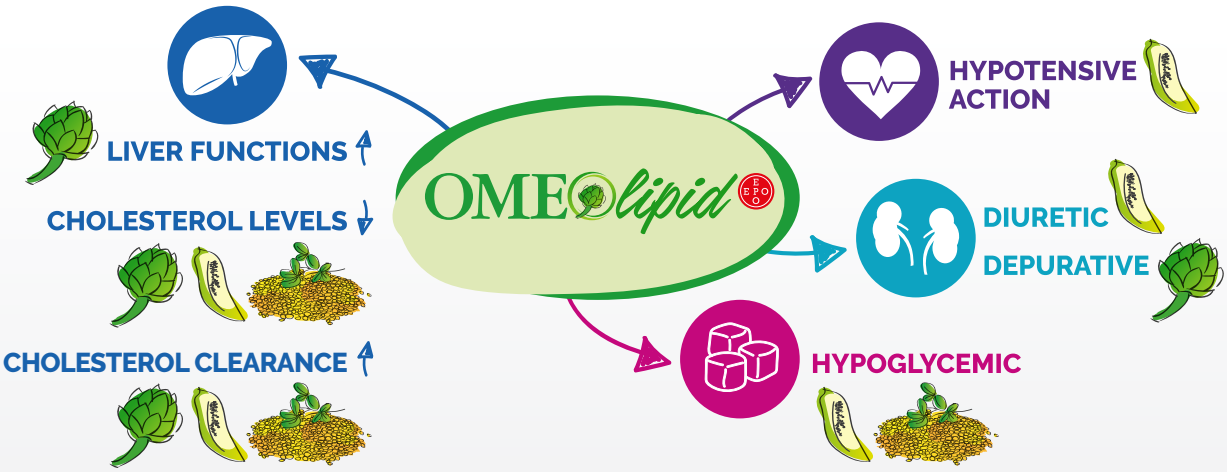
CAIHUA *Cyclanthera pedata* (L.) Schrad.

Caihua is a traditional plant from South America; the fruit contains flavonoids and in Peru its use is documented since 3700 b.C. as hypothensive, antidiabetic, anti-inflammatory and hypocholesterolemic.

FENU GREEK *Trigonella foenum-graecum* L.

Fenu greek is a milestone of the Ayurvedic medicine, alleviating *kapha* and *vata*. The seeds contain saponines, coumarines, flavonoids and alkaloids. They are traditionally used to treat obesity and diabetes, having hypocholesterolemic, diuretic, diaphoretic, carminative, hypoglycemic and demulcent properties.

VS



The synergic combination of the 3 plants is what makes Omeolipid® unique compared to other natural and synthetic ingredients already present in the market.

Since liver is the most important organ involved in lipid metabolism, it is essential to preserve and improve its functions. Omeolipid® has strong **hepatoprotective** and **antioxidant** effects thanks to artichoke, as well as **depurative** effect (artichoke and caihua). Moreover, Omeolipid® promotes bile production and flow, essential for **cholesterol clearance**; in addition, fenu greek **decreases gut absorption** of cholesterol, therefore its uptake.

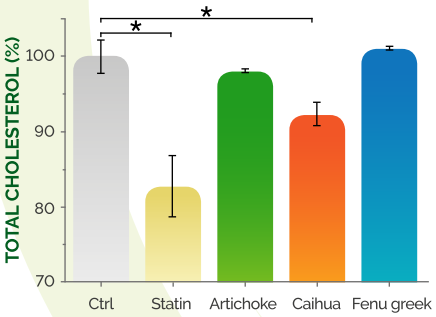
Omeolipid® is also able to counteract the adverse effects commonly associated with obesity and high level of cholesterol:

- altered carbohydrates metabolism: caihua and fenu greek improve glycemic level control, as they are **hypoglycemic** agents.
- kidney dysfunction: caihua improves **diuresis**.
- hypertension: caihua helps regulating blood pressure.

OMEOLIPID IS THE RIGHT CHOICE FOR A MORE COMPLETE AND HOLISTIC APPROACH TO LIPID BALANCE AND WELL-BEING!

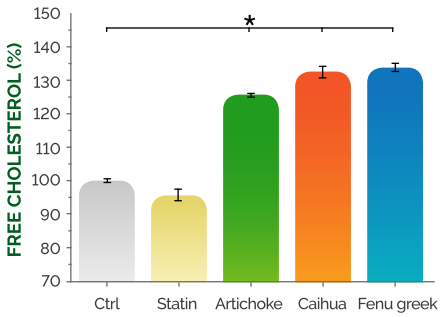
The anti-cholesterolemic and cholagogue activities of Omeolipid® were evaluated on human *in vitro* liver model (HEPG2 cell line)*. Total cholesterol is made of two fractions: esterified for cholesterol transport in blood (HDL, LDL etc…) and free or not-esterified for its elimination via bile.

TOTAL CHOLESTEROL



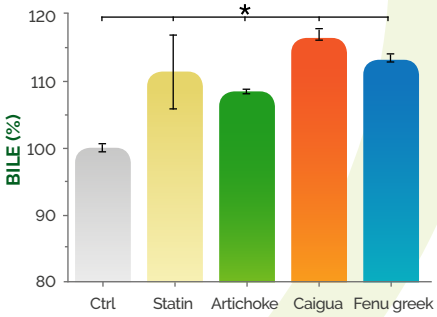
Caihua decreases total cholesterol of about 10% vs non-treated cells (Ctrl).

FREE (NON-ESTERIFIED) CHOLESTEROL

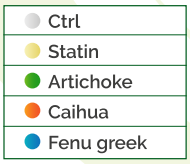


Artichoke, Caihua and Fenu greek increase free cholesterol of about 25-30% vs Ctrl, allowing an increase of cholesterol clearance. Statin does not increase free cholesterol fraction.

BILE PRODUCTION

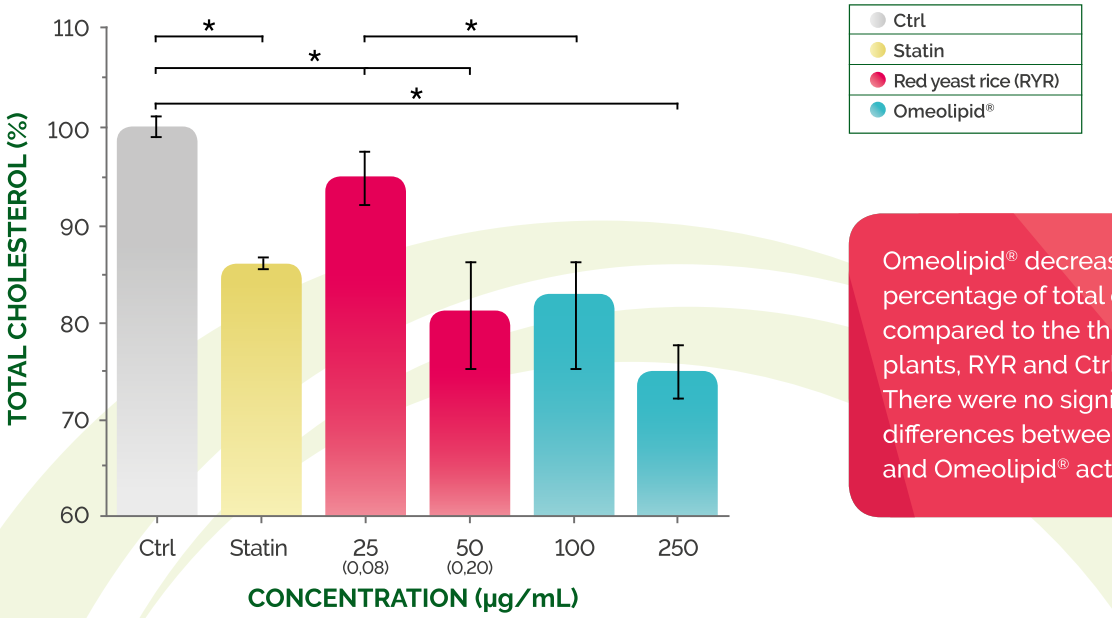


Artichoke, Caihua and Fenu greek increase the production of bile of about 10-20%, promoting cholesterol clearance and liver functionality. Statin weakly affects bile production.

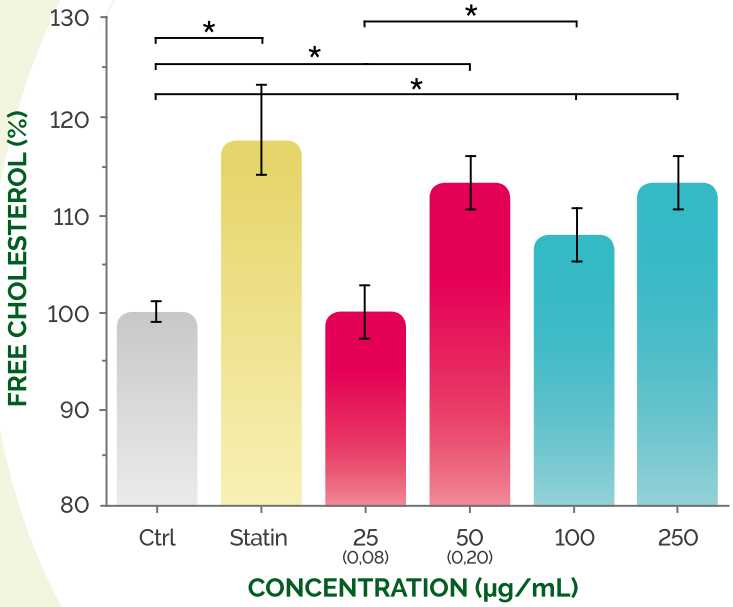


* Ctrl: non treated cells used as negative control; Atovarstatin was generally indicated as "statin". Values are mean ± SD of three different experiments.
*p < 0.05 treated cells *vs* control.

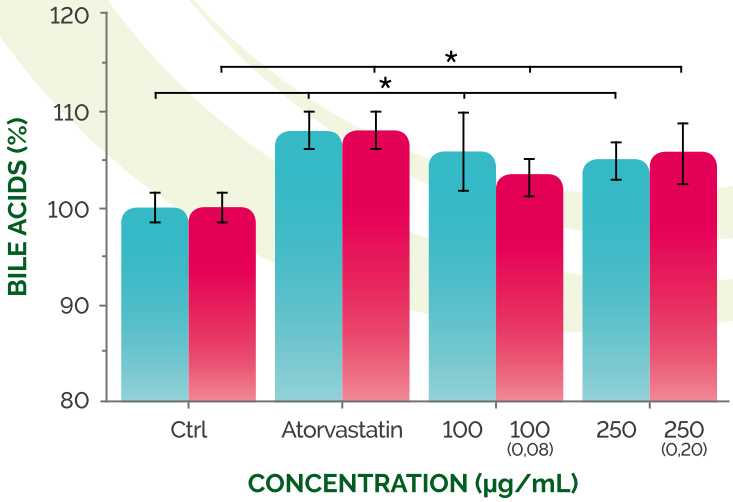
Omeolipid® is more active than the single plants.
Its properties are comparable or even better than red yeast rice with 5% monacolin K (RYR).



Omeolipid® decreased the percentage of total cholesterol compared to the three single plants, RYR and Ctrl cells. There were no significant differences between statin and Omeolipid® activity.



Omeolipid® increased the percentage of free cholesterol compared to cells treated with RYR and Ctrl cells.



Omeolipid®, RYR and synthetic statin increased the percentage of bile produced by hepatocytes compared to Ctrl cells.

Two different concentrations were used for Omeolipid® and RYR respectively. These concentrations were selected through MTT analysis as non-toxic concentrations for epatocytes. Omeolipid® was used at 100 and 250 µg/mL; RYR was used with two concentrations of monacolin K (0,08% and 0,20%).

OMEOlipid®

FOR LIPID METABOLISM

Omeolipid® is a dry powdered extract obtained from a blend of artichoke, caihua and fenu greek with anti-cholesterolemic, hypolipidemic and cholagogue properties, standardized to contain ≥ 3 % chlorogenic acid.

THREE MAIN REASONS TO CHOOSE EPO EXTRACTS:

QUALITY

- Manufacturing process entirely made in Italy
- Full traceability from the field to the final packaging
- Production chain checked at every step
- Accurate quantification of bioactive compounds by sophisticated analytical methods
- Compliance with EU legislation on Food and Food Supplements

SAFETY

- Botanical species certified by DNA barcoding analysis
- No harmful solvent used in the manufacturing process

EFFICACY

- A pre-clinical study proving the anti-cholesterolemic and cholagogue activities

ESTRATTI PIANTE OFFICINALI

EPO S.R.L
ISTITUTO FARMOCHIMICO FITOTERAPICO

Via Stadera 19, 20141 Milan (Italy)
Phone: +39 02 895571 - Fax: +39 02 89557490
E-mail: epo@eposrl.com

VISIT OUR WEBSITE
www.eposrl.com

UNI EN ISO 9001:2008
CERTIQUALITY
SISTEMA DI GESTIONE QUALITÀ CERTIFICATO
CERTIQUALITY È MEMBRO DELLA FEDERAZIONE CISQ
IQNet

DNA® CERTIFIED EXTRACTS

OMEOlipid® technical datasheet is available at www.eposrl.com

REFERENCES:

1. Capasso F, Grandolini G, Izzo AA. Fitoterapia. Impiego razionale delle droghe vegetali. Springer-Verlag editor. Third edition 2006

2. Liu J, Zhang J, Shi Y, Grimsgaard S, Alraek T, Fonnebo V. Chinese red yeast rice (Monascus purpureus) for primary hyperlipidemia: a meta-analysis of randomized controlled trials. Chinese Medicine 2006. 1:4

3. Ecam Ricert. Evaluation of anti-cholesterolemic activity of three extracts. April 2018, March 2019

4. Brack Egg A. Perù: diez mil años de domesticación. Bruno editor 2003

5. Pole S. Ayurvedic medicine. The principles of traditional practice. Elsevier editor 2006