

Bio-proteinol

INCI name

Placental Protein

Description

BIO-PROTEINOL is a biological extract from bovine placenta selected between the third and fourth month of gestation and controlled by licensed veterinarians.

It is of most importance that the placenta is collected at the right time to avoid problems of hormone transfer and also to be able to use the benefits of a still rich product. If the placenta is collected after-birth, it will be of poor nutritious elements and it will have a significant risk of high hormone content.

BIO-PROTEINOL is a natural physiological balanced medium ideal for the treatment of the skin and hair.

Its composition is rich in the following:

Biochemical elements:

Proteins: Macroglobulines, Glycoproteins, Lipoproteins

Enzymes: Alkaline Phosphatases, Acid Phosphatases, Desaminases, Lactic-dehydrogenase.

Lipids: Glycerides, Phospholipides.

Glucids: Hexose, Glucose, Hexosamines, Polysaccharides.

Other: Urea, Uric acid, Creatinine.

Mineral elements:

Anions: Phosphates, Chlorures and Sulfates

Cations: Calcium, Sodium, Potassium, Magnesium

Oligo-Elements.

Effects in Cosmetic Products

BIO-PROTEINOL has been used for years in special treatments for skin and hair. It is an especially well-known active for its use in anti hair-loss products.

- Stimulates the hair strength. Great effects in lotions and shampoos
- Stimulates the oxygen consumption of epithelial cells. Stimulates the cell's metabolic process.
- Excellent tissular and cellular moisturizer. Restores the ionic equilibrium.
- Astringent. Natural homeostatic agent.
- It is a natural emulsifier, a bio-detergent for fats and oils. Natural non-irritant cleanser agent.
- Soothing natural liquid and eutrophic-healing. This property makes it ideal for after-shave preparations
- Complete agent for skin nutrition and hydration.
- Allowed to be used pure for "shock" treatments.
- Sterile biological vehicle. Induces the penetration of other active ingredients.

Bio-proteinol

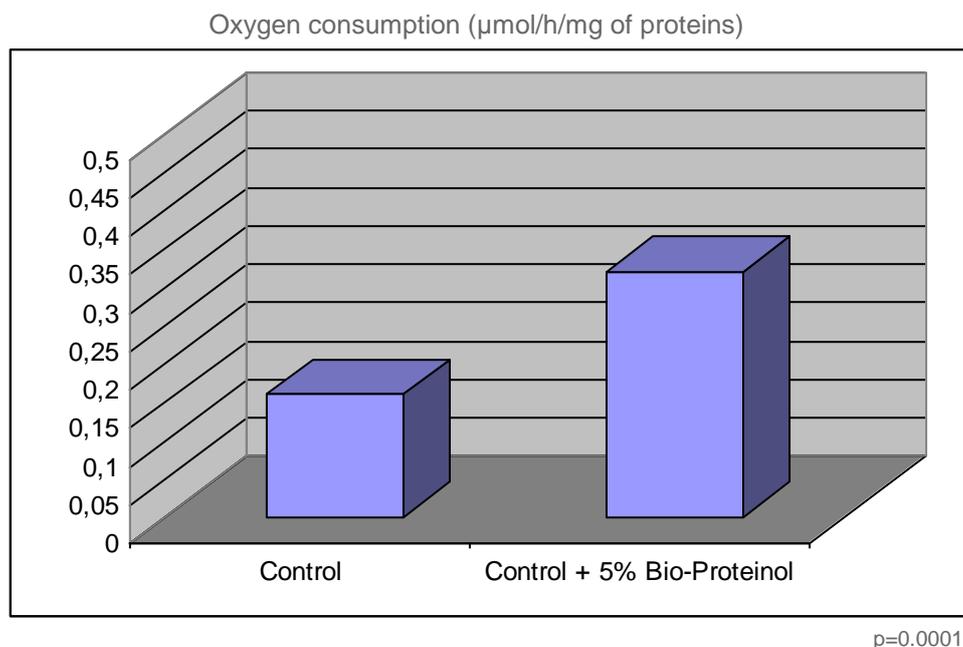
Efficacy test

The aim of this study is to measure the increase in oxygen consumption of epithelial cells due to the action of Bio-Proteinol

Protocol:

- Homogenate of epithelial cells
- Polarographic measure of the O₂ consumption in phosphate buffer
- Addition of 5% of Bio-Proteinol to the buffer
- Polarographic measure of the O₂ consumption in presence of Bio-Proteinol

Results:



Conclusion:

The addition of 5% of Bio-Proteinol has significantly stimulated the oxygen consumption of the epithelial cells in + 103%

Bio-proteinol can stimulate the oxidative metabolic process at epithelial cells.

Dosage – Solubility – Processing

A- DOSAGE:

The normal dosage is from 5 to 10%, but it also could be used pure at 100% in shock treatments.

Bio-proteinol

B- SOLUBILITY:

BIO-PROTEINOL is soluble in water and alcohol (max. 300). Insoluble in oils and fats.

C- PROCESSING:

BIO-PROTEINOL is compatible with numerous raw materials normally used in cosmetics, with pH values between 5 and 8, and temperatures of a maximum of 60 °C. It is also compatible with preparations containing alcohol (maximum 300). Nevertheless, it is the duty of the formulator to make sure of the stability of the formulae with the necessary tests.

It should be added into cosmetic preparations during the finishing process, for example, in emulsions at the cooling phase. Keep on stirring until reaching a perfect distribution and homogeneity.

Analytical Data

- APPEARANCE: Weak yellow limpid liquid
- pH: 5,60 – 6,30
- Dry extract: 1,00 – 1,50%
- Relative Density (at 20 °C): 1,009 – 1,012
- Refractive index (at 20 °C): 1,340 – 1,350
- Total nitrogen: 0,06 – 0,10%

- PRESERVATIVES: EC, USA and Japan approved

- MICROBIOLOGY: Maximum 50 CFU (non pathogenic)

- TOLERANCE: Good

- STORAGE: Store at room temperature, dry and away from light.

If original container is opened, to avoid secondary microbiological contamination handle with special care and keep refrigerated.