



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
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TECHNICAL DATA SHEET

YACA EXTRACT / A / HGL / CA11 /



Trade Name: YACA EXTRACT / A / HGL / CA11 /.

Product Code: EYCAAHGLC11.

INCI Name: AQUA, GLYCERIN, ARTOCARPUS HETEROPHYLLUS FRUIT EXTRACT, POTASSIUM SORBATE.

CAS Number: 7732-18-5; 56-81-5; Not available; 24634-61-5 / 590-00-1.

EC Number: 231-791-2; 200-289-5; Not available; 246-376-1.

Origin: GLYCERIN: Vegetable origin.

ARTOCARPUS HETEROPHYLLUS FRUIT EXTRACT: Origen vegetal.

POTASSIUM SORBATE: Synthetic origin.

Processing: GMO Free. / No Ethoxylation. / No Irradiation. / No Sulphonation. / No BSE/TSE. / No CMR. / No SVHC. / No Nanomaterial. / No DEG. / No DEHP. / No Formaldehyde. / No Phthalates. /.

Additives: Preservatives: Potassium sorbate. Paraben Free. / Antioxidants: None. / Other additives: None.

Solvents Used: Water and glycerin.

Appearance: Clear to slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Specific gravity: 1,050 - 1,300 g/cm³ (20°C approx.).

Direct pH value: 4,5 - 6,5 (20°C approx.).

Soluble/ Miscible: Water. Surfactants. Hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

Ecological Information: Sustainable.

Microbial Count: Total aerobics: Max. 300 microorganisms / gram.

Fungi and yeasts: Max. 200 microorganisms / gram.

Pathogens: Total absence in 1 gram.

Suggested Use Levels: 2,0 – 10,0%.

Suggested Applications: Antioxidant and anti-wrinkle products. Nourishing treatments.

Properties: Antibacterial, anti-inflammatory, antioxidant, nutritional and vulnerary.

Industrial packing: 1Kg., 5Kg., 25Kg., 225Kg.

Storage conditions: It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

Bibliography: - Atlas Ilustrado de Plantas Medicinales y Curativas, Ed. Susaeta.

- Dumont's grosse Kräuter Enzyklopädie.

- Fitocosméticos ALVAREZ CRUZ i BAGUE SERRANO.

- Gran enciclopedia de las plantas medicinales, BERDONCES i SERRA.

- Plantas medicinales, FONT i QUER.

- Proserpio G., Martelli A., Patri GF.; Elementi di Fitocosmeci; Ed. Sepem / Milano 1983.

- Websites.



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OVERVIEW

The jackfruit (*Artocarpus heterophyllus*), also known as jack tree, is a plant species belonging to the Moraceae family. It is an evergreen tree that reaches more than twenty meters in height. Its flowers can be male or female, being grouped, in both cases. Its fruits are large and orange pulp.

YACA EXTRACT by BIOGRÜNDL, S.L. is obtained from the fruit of said tree, treating it with a mixture of water and glycerin. The obtained extract contains the following active ingredients:

- Carbohydrates
- Proteins rich in essential amino acids.
- Minerals, K, Mg, Mn, Cu, Zn, P, Ca and Se.
- Vitamins, especially A and C.
- Flavonoids
- Polyphenols

USE AND DOSAGE

The use and application in cosmetics of YACA EXTRACT by BIOGRÜNDL, S.L. is justified by its antibacterial, anti-inflammatory, antioxidant, nutritional and vulnerary properties.

YACA EXTRACT by BIOGRÜNDL, S.L. is very useful for the treatment of damaged skin, both due to the unfavorable factors of the environment and the sun. Also, its protective and nourishing activity of the skin is important.

If turbidity is observed, it is advisable to previously dissolve the product in a portion of the water provided to manufacture the final product and filter after 12-24 hours.

The recommended concentrations of use are between 2% and 10%. For very special effects the dosage can raise up to 15%.



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PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear to slightly opalescent liquid.

Colour: Characteristic (yellowish to deep brown).

Odour: Characteristic.

Direct pH value: 4,5 - 6,5 (20°C approx.).

Specific gravity: 1,050 - 1,300 g/cm³ (20°C approx.).

Solubility in water: Fully soluble (20°C approx.).

Solubility in other solvents: Insoluble in organic solvents and lipids. Soluble in surfactants, hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

Heavy metals: No more than 5 mg/Kg.

Sulfated ash: No more than 0,01%.

Chlorides: No more than 0,007%.

Sulfates: No more than 0,002%.

Other information: None.

Total aerobics: Max. 300 microorganisms / gram.

Fungi and yeasts: Max. 200 microorganisms / gram.

Pathogens: Total absence in 1 gram.

DERMATOLOGY INNOCUOUSNESS

It was performed by the patch test (Patch test) on 10 volunteers. To this purpose, 15% YAKA EXTRACT by BIOGRÜNDL, S.L., was added to an O/W emulsion; 0,5g. of this emulsion was poured over the patch and attached on the forearm. It is thus maintained for 24, 48 and 72 hours, after which, the given reaction was evaluated, according to the following table of values:

1. No erythema.
2. Slight erythema.
3. Well defined erythema.
4. Severe erythema.

The result was absence of erythema on the 10 volunteers.

On the recommended concentrations, the product is skin innocuous.



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STORAGE CONDITIONS

It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

INCI DENOMINATION

AQUA, GLYCERIN, ARTOCARPUS HETEROPHYLLUS FRUIT EXTRACT,
POTASSIUM SORBATE.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Anti-oxidant action.

N (volunteers): 30 (10 ♀ and 20 ♂).

Age (volunteers): 31 - 60 years old.

Left side part to be treated:

Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

YACA EXTRACT 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

YACA EXTRACT 5%, 15 volunteers, suitable cosmetic base.



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Assayed parameters:

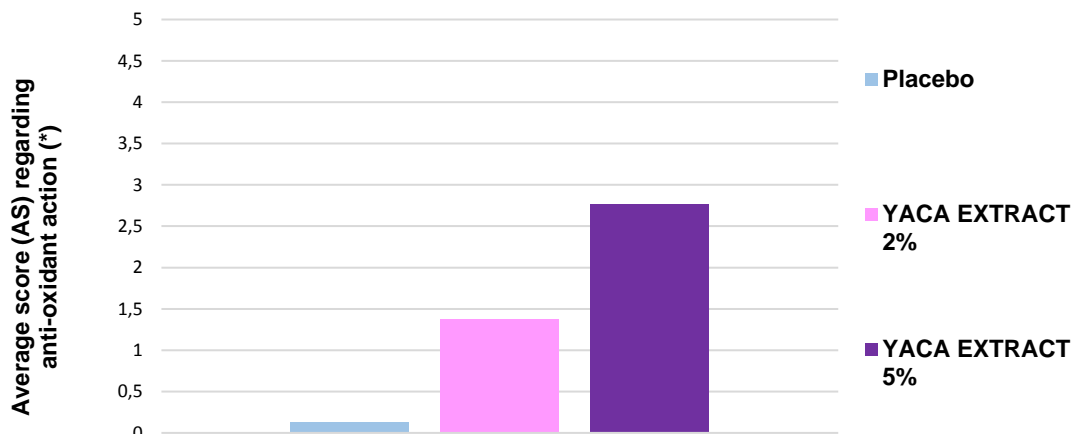
	Assay	N (volunteers)	Age (volunteers)	Placebo	YACA EXTRACT 2%	YACA EXTRACT 5%	Assay performed (Days)	Results measured (Days)
Anti-oxidant action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 10 ♀ 20 ♂	31 - 60	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1



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SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Anti-oxidant action was evaluated by determination of lipid rancidity degree found in volunteers skin sample.

Total number of days in which the assay was performed (treatment was applied):
D = 30 days (every day during the effectiveness test).

Total number of days in which the results were measured:
D' = 1 day (effectiveness test last day).

Average score:

Worst result: Zero limit value is assigned.

Best result: Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% YACA EXTRACT by BIOGRÜNDL, S.L., 5% YACA EXTRACT by BIOGRÜNDL, S.L.

Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

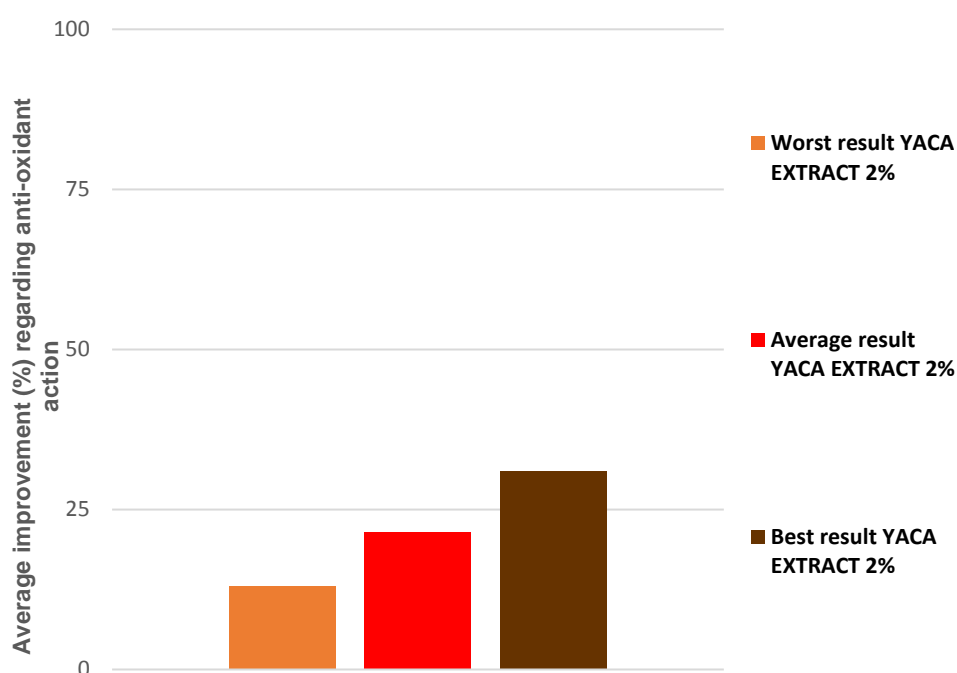
AS rank between 4 – 5: Excellent cosmetic result.



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YACA EXTRACT 2%



Results:

Worst result YACA EXTRACT 2%: 13%
Average result YACA EXTRACT 2%: 21,5%
Best result YACA EXTRACT 2%: 31%

Results meaning:

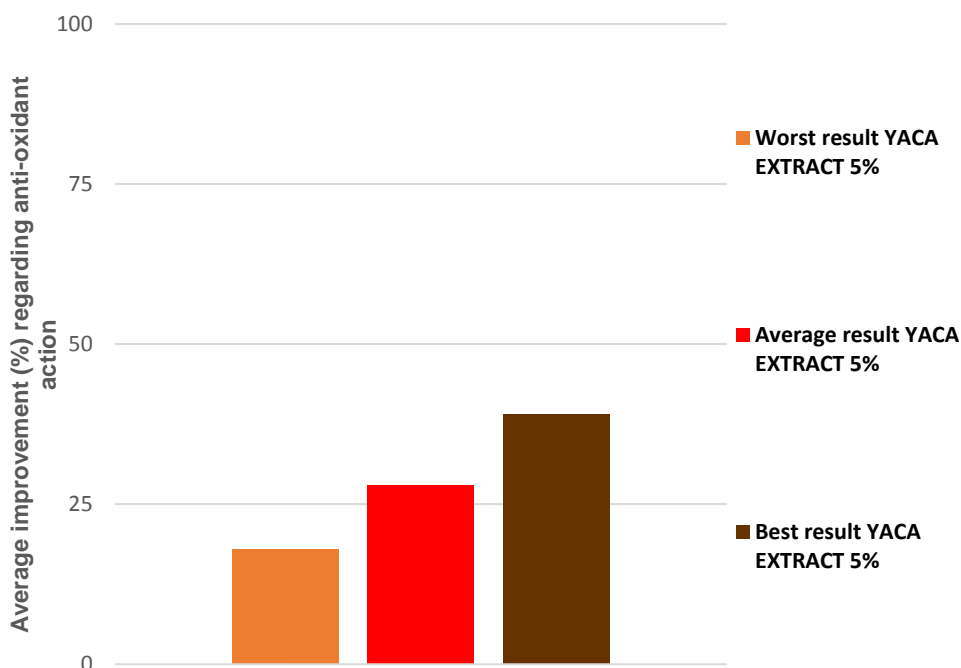
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



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YACA EXTRACT 5%



Results:

Worst result YACA EXTRACT 5%: 18%
Average result YACA EXTRACT 5%: 28%
Best result YACA EXTRACT 5%: 39%

Results meaning:

AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.