

INGREDIENTS FOR NUTRACEUTICALS & FUNCTIONAL FOOD

exGrape™ TOTAL Grape extracts
exGrape™ ANTHOCYANINS Grape skin extracts
exGrape™ SEED Grape seed extracts
Olivex™ Olive extract
OleoGrape™ SEED Grape & olive extract
Veri-te™ Resveratrol
VinoFit+™ Red wine polyphenols & Resveratrol
BerryShield™ Berry extract powders
BerryShield™ Berry juice concentrate powders
MitoActive™ Red- and blackcurrant j. c. powders
MitoBeauty™ Red- and blackcurrant j. c. powders
Ferlux Berry extracts
AlphaFen™ Fenugreek extract
PhytoPumpkin™ Pumpkin seed Extract
Organic plant protein powders
Organic grass powders

BREKO

Wines & Natural Ingredients since 1977

exGrape™ Grape extracts

These highly standardised grape extracts contain a broad spectrum of polyphenols with many properties that are beneficial to health. In vitro and in vivo studies indicate that wine grape polyphenols exhibit antioxidant, antithrombotic and blood pressure-reducing properties and thereby promote cardiovascular health. In addition, a human study conducted in healthy subjects at high metabolic risk revealed that the grape polyphenol extract exGrape™ TOTAL can counteract high oxidative stress, lipid peroxidation and insulin resistance.

The extracts are produced exclusively using grapes cultivated in France and directly processed on site in a resource-efficient manner by our partner GrapSud. The resultant biomass and the process water that has been treated in a wastewater treatment plant are returned to the vineyard to maintain soil fertility.

For the exGrape™ TOTAL grape extracts, the skins and seeds of the grape varieties Merlot, Cabernet Sauvignon and Grenache grown in the South of France are used. The grape seed extracts are extracted from grapes grown in the Champagne, Alsace, Loire and Occitanie regions. On a contract basis, the grape seed extracts exGrape™ SEED OPCCP and OPCFR are also available exclusively from one of the regions mentioned.

Following extraction, spray-drying and agglomeration is carried out without the use of carrier substances (F: fine powder; G: agglomerated powder). The agglomerated powders are characterised by improved product handling (free flowing, reduced dust in production) and increased solubility.

844F	exGrape™ TOTAL R2500 red grape extract	≥ 95 % PP, ≥ 30 % OPC, ≥ 2 % ANTH; ≥ 2500 ppm tR Halal certified by HFCE
842F/842G	exGrape™ TOTAL red grape extract	≥ 95 % PP, ≥ 30 % OPC, ≥ 2 % ANTH; ≥ 100 ppm tR 842F: Halal certified by HFCE
840PP	exGrape™ ANTHOCYANINS PP red grape extract	≥ 80 % PP, ≥ 20 % OPC, ≥ 15 % ANTH Halal certified by HFCE
843G	exGrape™ ANTHOCYANINS red grape extract	≥ 60 % PP, ≥ 10 % OPC, ≥ 8 % ANTH Halal certified by HFCE
840P	exGrape™ ANTHOCYANINS P red grape extract	≥ 40 % PP, ≥ 5 % OPC, ≥ 2 % ANTH Halal certified by HFCE
840S	exGrape™ ANTHOCYANINS S red grape extract	≥ 25 % PP, ≥ 3 % OPC, ≥ 1,5 % ANTH Halal certified by HFCE
848CPF	exGrape™ SEED OPCCP grape seed extract	≥ 95 % PP, ≥ 80 % PP (Folin), ≥ 50 % OPC, ≥ 4 % Monomers, ≥ 4 % Dimers Halal certified by HFCE; Seeds from Champagne region
849FRPF	exGrape™ SEED OPCFRP grape seed extract	≥ 95 % PP, ≥ 80 % PP (Folin), ≥ 50 % OPC, ≥ 4 % Monomers, ≥ 4 % Dimers Halal certified by HFCE; Seeds from France
849FRF/849FRG	exGrape™ SEED OPCFR grape seed extract	≥ 95 % PP, ≥ 80 % PP (Folin) ≥ 50 % OPC 849FRF: Halal certified by HFCE; Seeds from France
847FRF	exGrape™ SEED OPC grape seed extract	≥ 95 % PP, ≥ 80 % PP (Folin), ≥ 40 % OPC 848FRF: Halal certified by HFCE; Seeds from France
837FRWF	exGrape™ SEED OPCFRW grape seed extract	≥ 70 % PP, ≥ 55 % PRO, ≥ 30 % OPC Halal certified by HFCE; Seeds from France
845	exGrape™ SEED OPC grape seed extract, liquid	≥ 10 % OPC Halal certified by HFCE; Seeds from France
846P	exGrape™ SEED P grape seed extract	≥ 85 % PP Halal certified by HFCE; Seeds from Europe
846S	exGrape™ SEED S grape seed extract	≥ 70 % PP Halal certified by HFCE; Seeds from Europe

Abbreviations used for the stated concentrations: PP: total polyphenols (UV 280 nm or Folin), PRO: proanthocyanidins, ANTH: anthocyanins, OPC: oligomeric proanthocyanidins, tR: trans-resveratrol

Olivex™ & OleoGrape™ Grape and olive extracts

Many studies provide evidence for the positive health-related effects of phenolic compounds from olives, such as tyrosol and hydroxytyrosol. These have been shown to protect the LDL particles from oxidative damage, a protective mechanism in the prevention of cardiovascular risks. Furthermore, the anti-inflammatory properties and improvements in endothelial function contribute towards protecting the cardiovascular system. Current research is also focusing on the investigation of the effects of olive polyphenols on joint health.

The olive extract Olivex™ is a standardised polyphenol extract that stems exclusively from southern French olives. Immediately after the harvest the olives are pressed in traditional oil mills. The olive water, rich in polyphenols, that is separated from the olive oil is extracted and spray dried.

Olivex™ is available as a spray-dried powder that is standardised for tyrosol and hydroxytyrosol, using maltodextrin as the carrier substance. A variant that contains no carrier substance is the product OleoGrape™ SEED, a patented extract from olives and grape seeds that is standardised for OPC and hydroxytyrosol. The extracts are produced in a resource-efficient manner by our partner GrapSud in the South of France.

860FP	Olivex™ Olive fruit extract	≥ 25 % PP, ≥ 6 % HT, ≥ 0,8 % T
861F	OleoGrape™ SEED Grape seed and olive extract	≥ 95 % PP, ≥ 30 % OPC, ≥ 6 % HT Halal certified by HFCE

Abbreviations used for the minimum stated concentrations: PP: total polyphenols (UV 280 nm), OPC: oligomeric proanthocyanidins, HT: hydroxytyrosol, T: tyrosol

Veri-te™ Resveratrol

Resveratrol is a polyphenol that is naturally produced by grapes, blueberries and other plants as a defence mechanism against harsh growth conditions and pathogens. With more than 12,000 published studies and over 170 human clinical trials, resveratrol is considered one of the most well-investigated compounds applied in dietary supplements, functional food and beverages, cosmetics and animal health. This published research and clinical data suggest that resveratrol can be a key ingredient for healthy living.

Veri-te™ resveratrol is produced by Evolva using an innovative yeast fermentation process. This means Veri-te™ is resveratrol is pure and highly concentrated with >98% trans-resveratrol, free of contaminants (e.g. pesticides, emodin & PAHs), consistent from batch to batch and versatile, due to off-white colour, odourless and neutral taste.

Veri-te™ Resveratrol has many potential benefits:

Bone Health	<ul style="list-style-type: none"> • Supports bone mineralization and formation • Complements other bone supporting supplements (such as Vitamin D)
Cognitive Function	<ul style="list-style-type: none"> • Improves mood, well-being and pain perception • Enhances ability to maintain memory, alertness and concentration
Cardiovascular Health	<ul style="list-style-type: none"> • Supports blood circulation and healthy blood pressure • Improves vascular system and maintains healthy cholesterol and lipid levels
Oral Health	<ul style="list-style-type: none"> • Promotes gum and oral health due to anti-inflammation properties • Prevents chronic bad breath based on selective anti-bacterial activity
Skin Health	<ul style="list-style-type: none"> • Protects skin from oxidative stress and inflammation • Improves skin elasticity and hydration, reduces the appearance of age spots and wrinkles
Healthy Gut Microbiota	<ul style="list-style-type: none"> • Preserves healthy gut bacteria with selective anti-bacterial activity • Helps soothe inflammation of the intestine
Eye Health	<ul style="list-style-type: none"> • Promotes normal blood flow and oxygen delivery • Helps protect retinal cells from the aging processes and environmental stressors
Blood Glucose Support	<ul style="list-style-type: none"> • Triggers cellular blood glucose (energy) uptake • Supports healthy fasting and post-meal blood glucose level

RESHAW (Resveratrol Supporting Healthy Aging in Women) was a 24-month randomized, double-blind, placebo-controlled, two-period crossover intervention conducted to evaluate the effects of Veri-te™ resveratrol (75 mg twice daily) on cognition, cerebrovascular function, bone health, cardiometabolic markers, and well-being in postmenopausal women.

The first two publications demonstrated improved cerebrovascular function, overall cognitive performance and bone mineral density in the femoral neck. The increase in bone mineral density in the femoral neck resulted in an improvement in T-Score and a reduction in the 10-year probability of major and hip fracture risk. These benefits were observed in postmenopausal women without osteoporosis, and a sub-analysis suggests that resveratrol could be used synergistically with calcium plus vitamin D supplements to further reduce the risk of total and hip fractures.

998	Veri-te™ Resveratrol	> 98 % trans-Resveratrol
998API	everesveratrol™	> 98 % trans-Resveratrol, pharma quality
998COS	Veri-te™ Resveratrol	> 99 % trans-Resveratrol, cosmetic quality
998WD	Veri-Sperse™ Resveratrol	> 90 % trans-Resveratrol, water-dispersable 0,5 g in 250 ml
998AQUA	Veri-te™ Aqua Resveratrol	> 7 % micellised trans-Resveratrol

VinoFit+™ Red wine polyphenols & Resveratrol

Various studies show that red wine consumed in moderation can have a positive effect on health. At the beginning of the 1990s, scientists made an interesting observation on the basis of epidemiological studies: despite a traditionally high alcohol and fat consumption of the French, the rate of heart attacks was significantly lower in France than in other industrial nations. This observation became known as the French paradox and was justified with the high red wine consumption of the French. It was assumed that the polyphenols present in high concentrations in red wine, including OPC and resveratrol, had a cardioprotective effect.

In the meantime, various studies have been conducted that confirm the positive health effects of OPC and resveratrol. In addition to cardioprotective properties, these include improvements in cognitive function, bone health, insulin resistance and gut health.

VinoFit+™ is a formulation of red wine extract, red wine marc extract and resveratrol from biofermentative production and thus consists of the valuable components of red wine, but without alcohol. The resveratrol content of red wine varieties can vary greatly, because it depends on the location and the environmental conditions of the vines. VinoActiv®, on the other hand, guarantees a standardised, high content of resveratrol and OPC.

888	VinoFit+™ Red wine Polyphenols & Resveratrol	Red wine extract, red wine marc extract & Resveratrol from fermentation - without carrier
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BerryShield™ Berry extract & berry juice concentrate powders

BerryShield™ powders are characterised by their natural berry taste and intensive colour. The BerryShield™ matrix technology protects the ingredients from oxidation and increases the pH and colour stability in the berry powders, also during end-use applications.

The berries are cultivated exclusively by contract farmers in Northern and Western Europe (predominantly in Denmark).

870ST	BerryShield™ Tart cherry juice concentrate powder	1 kg powder equal to 7 kg of fresh tart cherries
870P	BerryShield™ Tart cherry juice concentrate powder, Premium	1 kg powder equal to 10 kg of fresh tart cherries
870PORG	Organic BerryShield™ Tart cherry juice concentrate powder, Premium	1 kg powder equal to 10 kg of fresh tart cherries
870E10	BerryShield™ Tart cherry extract 10 %	1 kg powder equal to 50 kg of fresh tart cherries > 10 % PP
870E35	BerryShield™ Tart cherry extract 35 %	1 kg powder equal to 250 kg of fresh tart cherries > 35 % PP
871ST	BerryShield™ Blackcurrant juice concentrate powder	1 kg powder equal to 7 kg of fresh blackcurrants
872ST	BerryShield™ Redcurrant juice concentrate powder	1 kg powder equal to 7 kg of fresh redcurrants
873ST	BerryShield™ Elderberry juice concentrate powder	1 kg powder equal to 10 kg of fresh elderberries
873P	BerryShield™ Elderberry juice concentrate powder, Premium	1 kg powder equal to 16 kg of fresh elderberries
875ST	BerryShield™ Strawberry juice concentrate powder	1 kg powder equal to 11 kg of fresh strawberries
876ST	BerryShield™ Bilberry juice concentrate powder	1 kg powder equal to 10 kg of fresh bilberries
877ST	BerryShield™ Aronia juice concentrate powder	1 kg powder equal to 7 kg of fresh aronia berries

Abbreviations used for the stated concentrations: PP: total polyphenols (Folin)

MitoActive™ & MitoBeauty™ Red- and blackcurrant juice concentrate powders

Ribetril™A, the patented active ingredient in MitoActive™, is a unique bioactive polyphenol alkaloid that only occurs in selected varieties of black and red currants. Ribetril™A increases the number of mitochondria and their activity. This results in improved energy production. Furthermore, Ribetril™A improves microcirculation and tissue regeneration. The optional addition of magnesium to MitoActive™ permits the endorsement of claims relating to health benefits.

MitoActive™ is marketed in the beauty industry as MitoBeauty™. In addition to magnesium, an optional addition of biotin is made to the extract. This allows the additional endorsement of claims relating to beauty benefits.

A human study conducted in 50 subjects with MitoBeauty™ revealed significant skin improvement (reduction of wrinkles, improvement in microcirculation and skin moisture).

874AP	MitoActive™ Red- and Blackcurrant juice concentrate powder	1 kg powder equal to 7 kg of fresh red- and blackcurrants
874AD	MitoActive™ Red- and Blackcurrant juice concentrate	Red- and blackcurrant juice concentrate with or without Mg Bulk shipped in IBC
874BP	MitoBeauty™ Red- and Blackcurrant juice concentrate powder	1 kg powder equal to 7 kg of fresh red- and blackcurrants
874BD	MitoBeauty™ Red- and Blackcurrant juice concentrate	Red- and blackcurrant juice concentrate with or without Mg, Biotin Bulk shipped in IBC

Ferlux Berry extracts

The Ferlux Berry Extracts are produced in France by our partner Ferlux, a company with a history of over 50 years in the field of extraction. The products are characterized by the use of high quality fruit, transparency from cultivation to extraction as well as high purity and standardisation. These extracts are standardised to high anthocyanin contents of up to 36 %. In addition, the respective anthocyanin profile is qualified via LC-MS and quantified by uHPLC in relation to Cy-3-glc.

Upon customer request, further berry extracts can be produced or further standardisations can be realized.

750F17	MELACYAN 17 Aronia extract	Aronia extract (<i>Aronia melanocarpa</i>), maltodextrin > 17 % Anthocyanins (HPLC)
751F18	EXTRACYAN 18 Aronia extract	100 % Fermented Wild Berry Extract > 18 % Catocyanic Complex
751F30	EXTRACYAN 30 Aronia extract	Fermented Wild Berry Extract, maltodextrin > 30 % Polyphenols (UV)
752F10	OROCYAN 10 Aronia extract	100 % Cranberry Extract > 10 % Proanthocyanidin (HPLC)
753F25	ANTHOCYAN 25 Wild Bilberry extract	Extract from European Wild Bilberry (<i>Vaccinium myrtillus</i>), maltodextrin ≥ 25 % Anthocyanins (HPLC), DER: 80:1 +/- 20 %
755F14	PROTECCYAN 14 Elderberry extract	Extract from European Wild Bilberry (<i>Vaccinium myrtillus</i>), maltodextrin ≥ 14 % Anthocyanins (HPLC)

AlphaFen™ Fenugreek extract

Fenugreek is used in Ayurvedic medicine and is an impressive plant containing numerous highly useful bioactive substances, such as saponins and saponins.

AlphaFen™ is a completely new extract from fenugreek seeds with significantly improved bioavailability thanks to its liposomal formulation. The saponins and saponins are present in concentrations that are 4 to 10 times higher than in other extracts that are available on the market to date.

AlphaFen™ improves sexual health and muscle strength through increasing the overall and free testosterone levels and reducing oestrogen level. In addition, studies have provided evidence for an improvement in the quality of sleep and a reduction in states of anxiety when this fenugreek extract is taken.

AlphaFen™ is the first fenugreek product that is fully soluble in liquids, a property that opens up a series of new potential applications. The essential oils that underlie the strong odour and taste have been substantially reduced in an innovative manufacturing process.

890	AlphaFen™ Fenugreek extract	> 30 mg/g Saponin complex
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PhytoPumpkin™ Pumkin seed Extract

Pumpkins are among the oldest cultivated plants in the world, they were already cultivated around 7,000 to 5,000 BC. Traditionally, the seeds and their extracts are used for prostate complaints (enlargement of the prostate) and bladder complaints (irritable bladder, bladder weakness). Their function is supported due to the bioactive ingredients in the kernels.

PhytoPumpkin™ is a water-ethanolic extract from organic pumpkin seeds. For this extract, the seeds of the medicinal pumpkin variety Cucurbita pepo are used, which are grown in Styria. The Styrian seeds are rich in phytosterols, lignans, adenosine and arginine. Various clinical studies with PhytoPumpkin™ show a significant reduction in incontinence frequency and a significant decrease in nocturnal urination in men and women, which leads to a significantly better quality of sleep and life.

892 **PhytoPumpkin™
Pumpkin seed extract**

1kg extract is equal to 17 - 23 kg Pumpkin seeds

Organic grass powders

Grass powders provide a complex composition of proteins, carbohydrate, fibre, vitamins, minerals and secondary plant compounds and can therefore contribute towards a healthy diet.

The grasses that are selected stem from organic farms and are exclusively cultivated and produced in EU.

Mixtures tailored to client specifications can also be produced in combination with other Breko ingredients

770 **Organic Austrian barley grass powder**

771 **Organic Austrian wheat grass powder**

772 **Organic Austrian spelt grass powder**

773 **Organic Austrian oat grass powder**

774 **Organic Austrian lucerne grass powder**

Organic code number: DE-ÖKO-033

Organic plant protein powders

In a cohort study, high intake of animal protein was positively associated with mortality, with the inverse true for high intake of plant protein, especially among individuals with at least 1 lifestyle risk factor. Replacement of animal protein with plant protein was associated with lower mortality, suggesting the importance of protein source.

These organic protein powders are produced exclusively from European raw materials from organic farming. The oils are removed and the remaining raw material carefully milled without additional thermal treatment. These protein powders can be used as health ingredient for functional foods, such as cereal bars, smoothies, baked goods, snacks or as an individual packaged raw material.

Mixtures tailored to client specifications can also be produced in combination with other Breko ingredients.

760	Organic Toasted Austrian Pumpkin Seed Protein Powder	> 59 % proteins, > 9 % fibre
761	Organic Austrian Pumpkin Seed Protein Powder	> 65 % proteins, > 11 % fibre
762	Organic European Sunflower Seed Protein Powder	> 53 % proteins, > 23 % fibre
763	Organic Austrian Hemp Protein Powder	> 32 % proteins, > 48 % fibre
765	Organic Austrian Hemp Protein Powder, micronized	> 50 % proteins, > 30 % fibre
764	Organic Austrian Flax Seed Protein Powder	> 34 % proteins, > 38 % fibre

Organic code number: DE-ÖKO-033

The brands

exGrape, Olivex and OleoGrape Seed is a trademark of GRAP'SUD GROUP

MitoActive, MitoBeauty and BerryShield is a trademark of Asiros Nordic A/S

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AlphaFen is a trademark of Specnova

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For organic products:
DE-ÖKO-003