

i-Grape Extract

White grape extract in hydro-organic solvent mixture

i-Grape extract is a liquid white grape marc extract based on polyphenols from natural origin with high antimicrobial and antioxidant capacities



Composition

Ingredients	CAS
<i>Vitis vinifera</i> extract	84929-27-1
Ethyl Lactate	97-64-3
Distilled water	7732-18-5

Total phenolics index

5500-8500 mg GAE/L extract (milligrams equivalents of Gallic acid by liter of extract)

(Testing method: Spectrophotometry; Folin-Ciocalteau)

Main Polyphenols

Flavanols: Catechin, Epicatechin, Epicatechin-gallate, Epigallocatechin-gallate

Flavonols: Quercetin, Quercetine-3-glucoside (Isoquercetin), Quercetine-3-glucuronide (Miquelianin), Quercetin-3-rutinoside (Rutin), Kaempferol

Phenolic acids: Gallic Acid, Cafeic Acid, Caftaric acid, Phloroglucinic acid

Procyanidines: B1, B2

(Testing method: (HPLC-DAD))



Antimicrobial activity¹

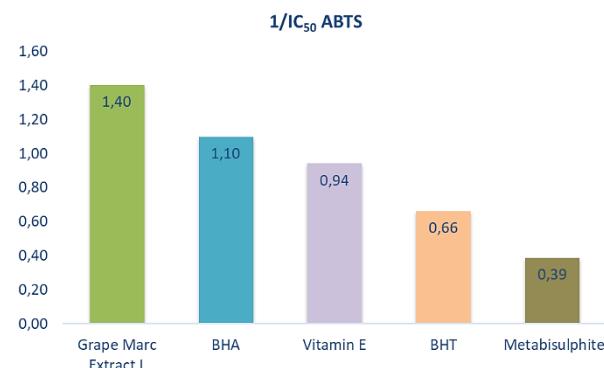
IC_{50} *Staphylococcus aureus* << 0.625 %
 IC_{50} *Bacillus cereus* << 0.625 %
 IC_{50} *Escherichia coli* < 0.8 %
 IC_{50} *Streptococcus uberis* << 0.625 %
 IC_{50} *Salmonella enteri* subsp. *enterica* < 0.75 %

Antioxidant activity²

Relative effectiveness in free radical scavenging activity of the grape marc extracts compared to the common synthetic antioxidants BHT, BHA and Vitamin E.

(Testing method: Spectrophotometry; ABTS)

	Concentration (μM)
i-Grape extract (ethyl lactate)	713
BHA (Butylated hydroxyanisole, E-320)	911
Vitamin E (α -Tocopherol, E-307)	1095
BHT (Butylated hydroxytoluene, E-321)	1508
Metabisulphite (E-224)	2570

**Extract appearance**

Golden brown liquid with a characteristic scent. Density (20°C): 1.04 g/mL.
pH=4.5.

Dosage

It is recommended to homogenize **i-Grape Extract** in a proportion between 0,5% and up to 5 % (v/v) in the final product, depending on its final purpose.

Storage/Handling

Room temperature, protected from direct light (< 25 °C/77 °F). Refrigeration and protection from light and excessive heat is recommended for optimal preservation.

¹ Antiparasitic and antifungal activity has also been demonstrated (contact the company for more details)

² The data obtained by calculating the concentration required to neutralize half of the free radicals present in the medium, provided by the ABTS reagent, show that the relative efficacy is better than BHA and Vit E and much better than that of BHT and metabisulphite



Applications

i-Grape Extract can be the basis of formulations with bactericidal and/or bacteriostatic activity for disinfection or treatment of diseases of microbial origin in zoosanitary, feed, and veterinary sectors (livestock and pets).

In addition, it can be the basis of formulations with antioxidants and/or preservative purposes in food and feed sectors.

Advantages

i-Grape Extract synergistically combines the bacteriostatic activity and the microbiocide potency of the polyphenols from the white grape and the organic solvent against Gram + and Gram - bacteria being a broad-spectrum antimicrobial.

i-Grape Extract exploits the enormous antioxidant power of the different families of polyphenols that make it up.

The extracts are natural and sustainable.

**Product
Stewardship**

i-Grape is concerned about the environment and thus our products are made from green and sustainable raw matter. White grape marc is a by-product from the wine industry, widely present in Galicia, which we reutilize to obtain our extracts using a green process.

i-Grape strongly encourages its customers to review the extracts properties with the company to make sure the usage they give our products is correct.

Country of origin: Spain (Galicia, NW)

CONTACT INFORMATION

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