ACTIVE CASSIS (ACE 30)

Groselha negra com alto teor de vitamina C

http://aformulabr.com.br/qrcode/activecassisace30afv01.pdf
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DESCRIÇÃO
Active cassis (ACE30) é um extrato de Groselha negra (Ribes nigrum L.) padrignonizado em 30% de antocianinas totais, além de possuir elevado teor de vitamina C (quatro vezes maior que o encontrado nas laranjas), vitamina A e potássio.

MECANISMO DE AÇÃO
ACE30 contém inibidores da enzima CYP1A, isoenzima responsável pela ativação de muitos cancerígenos. Aumenta a síntese de NO, o que induz o relaxamento vascular, sendo benéfico em condições de hipertensão, diabetes e aterosclerose. Inibe a MAO, enzima que degrada a dopamina, neurotransmissor essencial ao funcionamento do cérebro. Normaliza os níveis de endotelina-1, melhorando o fluxo sanguíneo ocular. Aumenta o pH da urina, a excreção de ácido cítrico e oxálico e a proliferação das células mononucleares e células T.

INDICAÇÕES
✓ Antioxidante;
✓ Anti-inflamatório;
✓ Protetor contra neoplasias;
✓ Regula sistema circulatório;
✓ Efeito sobre a saúde da visão;
✓ Antibacteriano e antiviral;
✓ Prebiótico.

DOSE USUAL
Recomendação oral de 50 a 1500mg de Active cassis- ACE 30 (Ribes nigrum L. - 30% de antocianinas) por dia.

SUGESTÕES DE FÓRMULAS

<table>
<thead>
<tr>
<th>ACE30 (Ribes nigrum L. ext-30% antocianinas)</th>
<th>250mg</th>
<th>Vinixin® (Vitis vinifera ext-90% polifenóis)........... 250mg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modo de uso:</strong></td>
<td>1 dose, 2 vezes ao dia.</td>
<td></td>
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<tr>
<td><strong>Indicação:</strong></td>
<td>aumento da imunidade.</td>
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<tr>
<th>ACE30 (Ribes nigrum L.-30% antocianinas)</th>
<th>...... 500mg</th>
<th>Oli OlaTM (Olea europaea ext-3% hidroxitirosol).....100mg</th>
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<tbody>
<tr>
<td><strong>Modo de uso:</strong></td>
<td>1 goma, 3 vezes ao dia.</td>
<td></td>
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<tr>
<td><strong>Indicação:</strong></td>
<td>antioxidante.</td>
<td></td>
</tr>
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PRINCIPAIS REFERÊNCIAS

Endothelium-dependent vasorelaxation induced by black currant concentrate in rat thoracic aorta.

We investigated the effect of black currant (BC) concentrate on smooth muscle in rat thoracic aorta. BC concentrate dose-dependently relaxed the norepinephrine (0.1 microM)-precontracted aorta, and the response was abolished after endothelium removal. Both oxyhemoglobin (1 microM), a nitric oxide (NO) scavenger, and IH-[1,2,4]oxadiazolo-[4,3-a]quinoxalin-1-one (ODQ, 0.5 microM), an inhibitor of guanylyl cyclase (GC), inhibited the relaxing effect of BC concentrate. NG-nitro-L-arginine methyl ester (L-NAME, 10 microM), a nitric oxide synthase (NOS) inhibitor, inhibited the relaxation, and the subsequent addition of L-arginine (1 mM), a NOS substrate, reversed the inhibitory effects of L-NAME. Neither indomethacin (10 microM), an inhibitor of cyclooxygenase, nor atropine (1 microM), an antagonist of muscarinic receptors, modified the effect of BC concentrate. Diphenhydramine (3 microM) and chlorpheniramine (2 microM), selective antagonists of H1 receptors, inhibited the relaxation, but cimetidine (0.3 mM), a selective antagonist of H2 receptors, did not affect the relaxation. These results indicate that, in the rat aorta, BC concentrate enhances synthesis of NO, which subsequently induces the endothelium-dependent vasorelaxation via the H1-receptors on the endothelium.

Evaluation of the effect of blackcurrant products on gut microbiota and on markers of risk for colon cancer in humans.

The purpose of this study was to determine in healthy humans whether First Leaf (FL; composed of blackcurrant extract powder, lactoferrin and lutein) and Cassis 30 (CAM30; blackcurrant extract powder) can positively modify the colonic microbiota by enhancing the growth of the beneficial bacteria and inactivating the toxic bacterial enzymes which are known to be involved in colonic carcinogenesis. Thirty healthy adult male and female volunteers were recruited for this study. Fluorescent in situ hybridization was carried out to analyse the populations of fecal microbiota. Consumption of FL and CAM30 led to significant increases (P < 0.0001) in the population sizes of lactobacilli and bifidobacteria whereas the population sizes of Clostridium spp. and Bacteroides spp were decreased significantly (P < 0.0001). In addition, feeding of FL and CAM30 decreases the activity of β-glucuronidase (bacterial enzyme which is considered to be one of the enzymes that increases risk for colorectal cancer) and significantly decreased (P < 0.05) the fecal pH. In conclusion, the results of this study open up the possibility that consumption of FL and CAM30 can offer various benefits to human health through acting as novel prebiotic agents via increasing the numbers of beneficial bacteria (lactobacilli and bifidobacteria) in the gut.

Antioxidant and anti-inflammatory activities of Ribes nigrum extracts.

Blackcurrant berries contain high amounts of flavonoids with various health benefits as anti-inflammatory properties attributed to their antioxidant potential. Leaves and buds actually used to produce food supplement could also exhibit such interesting properties. In the literature, various methods are often used and valid indicators of the antioxidant potential of dietary substances. However these assays do not provide evidence that antioxidants have in vivo or ex vivo activity when consumed. To obtain biologically relevant information, the antioxidant activities of the extracts were evaluated on cellular models implicating the measurement of blood haemolysis, the Cellular Antioxidant Activity on endothelial cells and the anti-inflammatory activities on isolated equine stimulated neutrophils and purified myeloperoxidase. These tests generally showed that the blackcurrant leaf extract have the highest antioxidant and anti-inflammatory (inhibition of MPO activity and ROS production on activated neutrophils) capacities correlated to the highest total phenolics content.
A review on bioactive compounds in black currants (*Ribes nigrum* L.) and their potential health-promoting properties.

Considerable amount of recent epidemiological data suggest that a high intake of fruits and vegetables offers a number of health benefits against degenerative diseases and can promote longevity. Black currant fruits are particularly rich sources of biologically active compounds, for example high levels of anthocyanins, proanthocyanidins, quercetin, myricetin, phenolic acids, and isorhamnetin are found in black currant. In addition, black currant possesses a high content of vitamin C, contributing together with bioactive phenolics to the high antioxidant activity of berries. Multiple health benefits by black currant phenolics have been suggested by a number of recent studies including the inhibition of development of certain cancers, cardiovascular and inflammation related diseases. Blackcurrant was recently demonstrated to provide effective neuroprotection against oxidative stress induced neuronal damages in human cell cultures. Among phenolics, anthocyanins are considered the most potent neuroprotective compounds found in soft fruits. Black currant also contains a wide range of flavonols including myricetin, quercetin and isorhamnetin, these flavonols have been demonstrated to possess neuroprotective activity. Black currant is in Europe an important berry for the food industry mainly because of its color and organoleptic properties, which makes it a suitable material for diverse food applications. Improving fruit quality by classical breeding methods is of big challenge, and recent advances in the development of molecular markers enables breeders to select complex traits with high accuracy and faster than conventional methods. Improving the levels of healthpromoting compounds in black currants by genetic transformation is in an early stage but offers a great potential for black currant improvement in coming years as has been demonstrated in other plants.

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**Black currant anthocyanins normalized abnormal levels of serum concentrations of endothelin-1 in patients with glaucoma.**

**PURPOSE:** Our recent study, which involved a randomized, placebo-controlled, double-masked 24-month trial (Ophthalmologica 2012;228:26-35), revealed that oral administration of black currant anthocyanins (BCACs) slowed down the visual field deterioration and elevation of ocular blood flow of open-angle glaucoma (OAG). To elucidate the underlying mechanisms of these BCAC-induced effects, as possible factors affecting glaucomatous optic neuropathy, changes of serum endothelin-1 (ET-1), nitric oxide (NO), and antioxidative activities were examined in the present study. **METHODS:** From among patients with OAG who participated in the randomized, placebo-controlled, double-masked trial, serum specimens were obtained from BCAC-treated (n=19) or placebo-treated (n=19) patients at baseline and every 6 months. Healthy volunteers (n=20) with age and gender matching the patients were used as a control. Serum ET-1 concentration, [NO2(-)] and [NO2(−) + NO3(−)] levels, advanced oxidation protein products (AOPP), and antioxidant activities were measured by using commercially available kits. **RESULTS:** At the trial baseline, serum ET-1 concentrations were significantly lower in patients with OAG (BCACs, 3.18±1.06 pg/mL; placebo, 3.44±0.84 pg/mL) than those in healthy volunteers (4.38±1.03 pg/mL) (one-way analysis of variance and a Tukey’s multiple comparison post hoc test, P<0.05). Upon administration of BCACs, serum ET-1 concentrations increased to the levels of those in healthy volunteers during the 24-month period. In contrast, those of placebo-treated patients remained at lower levels (3.82±1.14 pg/mL). While [NO2(-)] and [NO2(-)+NO3(-)] levels, AOPP, and antioxidative activities of patients from both the BCACs and placebo groups showed comparable levels to those of healthy subjects at baseline, no significant changes were observed during the observational period in either the BCAC or placebo groups. **CONCLUSIONS:** Among the possible beneficial effects of BCACs toward visual field progression in patients with OAG, our present results suggest that BCACs caused normalization of serum ET-1 levels, and this may modulate ET-1-dependent regulation of the ocular blood hemodynamics.
REFERÊNCIAS


