



— Your Trusted Source —

PureDefense w/NAC

Introduced 2009



What Is It?

PureDefense w/NAC contains a combination of EpiCor®, N-acetyl-L-cysteine (NAC), vitamins, zinc and herbal extracts designed to promote overall immune defense and provide enhanced support for upper respiratory health. EpiCor® is a fermentate of *Saccharomyces cerevisiae* containing various bioactive metabolites produced in a specialized fermentation process. These nutrient metabolites enhance immune cell production, including natural killer (NK) cells, B cells and T cells. Natural killer cells are part of the body's innate, or first-line, immune response. They respond more quickly than the adaptive immune system comprised of B cells and T cells. Once activated, natural killer cell activity peaks in as quickly as several hours, providing rapid support and wide-range immune defense.*

Uses For PureDefense w/NAC

Immune Defense: In one cellular study, EpiCor® promoted natural killer cell activation, as well as that of B cells and T cells. In two randomized, double-blind, placebo-controlled trials, EpiCor provided statistically significant support for upper respiratory tract health and overall immune health. A separate open label, in-house trial indicated a strong potential for EpiCor supplementation to enhance secretory IgA levels after 30 days. These various actions demonstrate the ability of EpiCor to address both innate and adaptive immune responses. NAC promotes endogenous glutathione production for antioxidant protection and provides lung defense mechanisms for healthy respiratory function. In a randomized, double-blind trial involving mostly older individuals, NAC supported comfort, nasal function and respiratory health through the winter months. Vitamin C, vitamin D and zinc provide nutritional immune support, enhancing healthy immune cell proliferation, activation and function. Vitamin D receptors have been found on a number of immune cell types, and it is believed to play an important role in seasonal immune health. Vitamin C and the bioflavonoid quercetin also help boost immune defense by supporting healthy antioxidant enzyme function.*

What Is The Source?

Ascorbic acid is derived from corn dextrose fermentation. Vitamin D is derived from lanolin. Zinc is derived from earthen ore. N-acetyl-L-cysteine is synthetic. EpiCor® dried yeast fermentate complex is derived from *Saccharomyces cerevisiae*. Elderberry extract is derived from *Sambucus nigra* fruit. Quercetin is derived from the Fava d'anta tree (*Dimorphanandra mollis*) pods and Cat's claw (*Uncaria tomentosa*) leaves. Ascorbyl palmitate is derived from corn dextrose fermentation and palm oil.

Recommendations

Pure Encapsulations recommends 2 capsules, twice daily, with meals.

Are There Any Potential Side Effects Or Precautions?

If pregnant or lactating, consult your physician before taking this product. NAC can cause G.I. upset, abdominal pain, vomiting, constipation or diarrhea. Zinc can cause a metallic taste in some individuals. There have been reports of quercetin causing headache or tingling in extremities. Consult your physician for more information.

"Natural killer (NK) cells are not only an important first-line defense, they set the stage for the adaptive immune response that follows. Research shows that NK cell activity is highly responsive to nutritional interventions and that supporting NK cell activity leads to better overall outcomes."

— Barry W. Ritz, PhD
Nutritional Immunologist

Are There Any Potential Drug Interactions?

Zinc may be contra-indicated with certain antibiotics. Elderberry may be contra-indicated for individuals on immunosuppressant medications. NAC is contra-indicated with nitroglycerin. Preliminary evidence suggests that quercetin may inhibit the metabolism of medications through the cytochrome pathways in the liver. Consult your physician for more information.

PureDefense w/NAC

four vegetarian capsules contain  v 0

vitamin C (as ascorbic acid)	500 mg
vitamin D (as cholecalciferol) D ₃	2,000 iu
zinc (as zinc citrate)	15 mg
n-acetyl-L-cysteine (free-form)	900 mg
EpiCor® dried yeast fermentate complex	500 mg
(from <i>Saccharomyces cerevisiae</i>)	
European elder (elderberry) (<i>sambucus nigra</i>) extract (fruit)	400 mg
quercetin	50 mg
ascorbyl palmitate (fat-soluble vitamin C)	40 mg
other ingredients: vegetarian capsule (cellulose, water)	

2 capsules, twice daily, with meals.

EPICOR® is a registered trademark of Embria Health Sciences, L.L.C.

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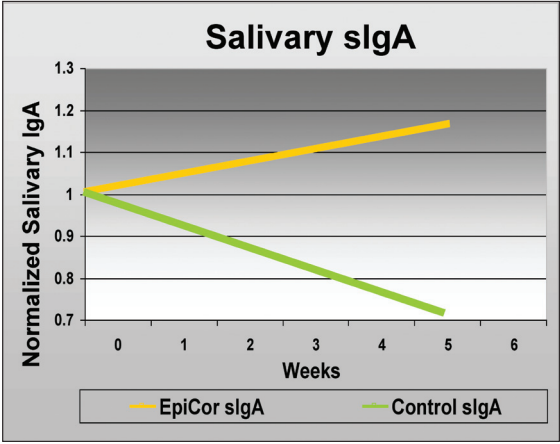


Fig. 1. Effect of EpiCor® on salivary IgA.*

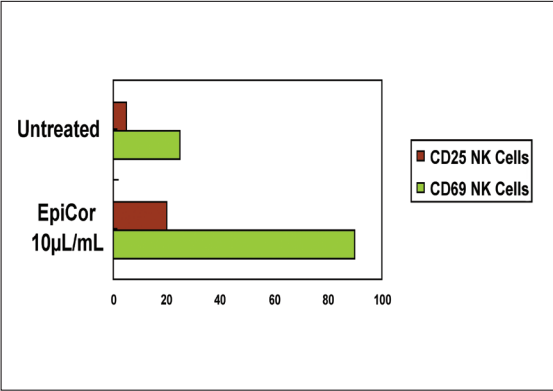


Fig. 2. Increase in natural killer cell activity with EpiCor®.*