



# 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. NK 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.\*

## Special Features

- Enhances first-line immune defense and upper respiratory health\*
- Contains a unique blend of EpiCor® *Saccharomyces cerevisiae* fermentate, NAC, nutrients and flavonoids
- Supports immune cell production and function to support innate and adaptive immune responses\*
- Offered in both 120-count bottle and convenient blister pack box designed for short-term dosing

## 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.\*

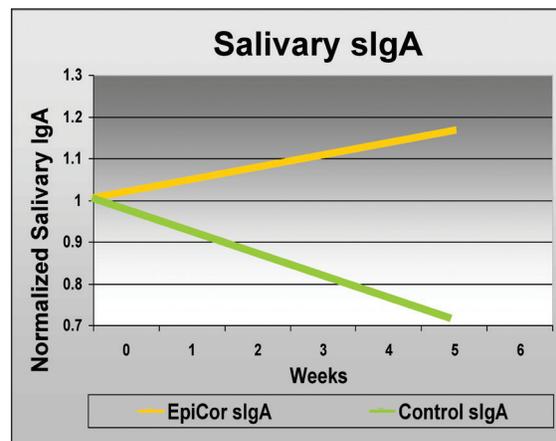


Figure 1. EpiCor® normalized salivary IgA after 30 days of in-house trial. Immunoglobulin A (IgA) plays a critical role in mucosal defense to help maintain a healthy immune response to environmental factors\*

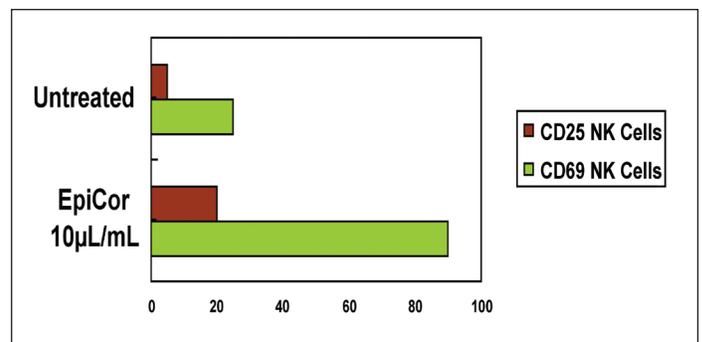


Figure 2. Increase in natural killer (NK) cell activity with EpiCor®. NK cells are part of the body's innate, or first-line, immune response. They respond more quickly than the adaptive immune system comprised of B cells and T cells. Once activated, natural killer cell activity peaks in as quickly as several hours, providing rapid support and wide-range immune defense.

(continued)

\*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease. 800-753-2277 | PureEncapsulations.com  
The information contained herein is for informational purposes only and does not establish a doctor-patient relationship. Please be sure to consult your physician before taking this or any other product. Consult your physician for any health problems.

*“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

### 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-I-cysteine is derived from duck feather. 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 (*Dimorphandra 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.

### Are There Any Potential Drug Interactions?

Zinc may be contraindicated with certain antibiotics. Elderberry may be contraindicated for individuals on immunosuppressant medications. NAC is contraindicated 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

two vegetarian capsules contain	 0
vitamin C (as ascorbic acid).....	250 mg
vitamin D (as cholecalciferol) (D <sub>3</sub> ) .....	1,000 IU
zinc (as zinc citrate) .....	7.5 mg
n-acetyl-I-cysteine (free-form) .....	450 mg
EpiCor® dried yeast fermentate complex.....	250 mg
(from <i>Saccharomyces cerevisiae</i> )	
European elder (elderberry) ( <i>Sambucus nigra</i> ) .....	200 mg
extract (fruit)	
quercetin.....	25 mg
other ingredients: vegetarian capsule (cellulose, water), ascorbyl palmitate	
2 capsules, twice daily, with meals.	

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